

ATHLETIC JOURNAL

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The address of each manufacturer is listed on page 6. Manufacturers will appreciate having coaches mention the name of The Athletic Journal when they write. All of the manufacturers listed in this guide carry or have carried advertising space in the Athletic Journal and are therefore anxious to co-operate with its readers.

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American College of Physical Education, L. M. Andree, Registrar, 1019 Diversey Parkway, Chicago, Ill. (June 21-July 31)

American Football Institute Coaching School, John DaGrosa, Director, Atlantic City, N. J. (August 16-21)

Bowling Green State University, Bowling Green, Ohio (June 7-12)

Butler University Coaching School, Paul Hinkle, Director, Indianapolis, Ind. (Aug. 9-14)

Akron Coaching School

June 21-25

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Jimmy Aiken, University of Akron
Paul (Tony) Hinkle, Butler University
Paul Bixler, University of Akron
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Mal Elward, Purdue University
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Paul Brown, Massillon, Ohio, High School
Paul (Tony) Hinkle, Butler University
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June 9-16

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Tuition, \$10.00

Catalina Island Coaching School

Catalina Island, California

August 9-14

Howard Jones, University of Southern California
Jimmy Phelan, University of Washington
Tom Lieb, Loyola University (Los Angeles)

Bill Spaulding, U. C. L. A.
Caddy Works, U. C. L. A.
Jimmy Needles, U. S. Olympic Champions
Sam Barry, University of Southern California

Everett Case, Frankfort, Indiana, High School

Tuition, \$25.00

Colgate University Coaching School

June 28-July 2

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Lew Andreas, Syracuse University
Jack Rourke, Colgate University
Bob Gillson, Colgate University
John Orsi, Colgate University
Les Hart, Colgate University
Tuition, \$15.00

Indiana Basketball Coaching School

August 16-20

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Mark A. Peterman, Springfield, Illinois, High School
Glenn Curtis, Martinsville, Indiana, High School
Everett N. Case, Frankfort, Indiana, High School
Cliff Wells, Logansport, Indiana, High School

Dave Kerr, Coach of Original N. Y. Celtics

Tuition, \$15.00

University of Minnesota Coaching School

June 14-19

Bernie Bierman, University of Minnesota
Dr. George Hauser, University of Minnesota
Dave MacMillan, University of Minnesota

Montana State University Coaching School

Week of June 21st

Bernie Bierman, University of Minnesota
"Hec" Edmundson, University of Washington
Dr. Wilbur Bohm, Washington State College

Doug Fessenden, Montana State University

Harry Adams, Montana State University
Lew Lewandowski, Montana State University
W. E. Schreiber, Montana State University

Tuition, \$15.00

University of California Summer Track School, Walter Frederick, 104 Eghleman Hall, Berkeley, Calif. (June 9-16)

Catalina Island Coaching School, J. M. Barry, Director, University of Southern California, Los Angeles, Calif. (Aug. 9-14)

Colby College Coaching School, G. F. Loeb, Director, Waterville, Maine (June 21-26)

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State University of Iowa Coaching School, E. G. Schroeder, Director, Iowa City, Iowa (June 14-Aug. 6)

Kansas State High School Athletic Association Coaching School, E. A. Thomas, Director, Box 14, Topeka, Kansas (Aug. 23-28)

University of Kentucky Coaching School, Lexington, Ky. (June 15-25)

University of Michigan Coaching School, Fielding H. Yost, Director, Ann Arbor, Mich. (June 28-Aug. 6)

University of Minnesota Coaching School, General Extension Division, University of Minnesota, Minneapolis, Minn. (June 14-19)

Montana State University Coaching School, Doug Fessenden, Director, Missoula, Montana (Week of June 21)

University of North Carolina Coaching School, E. R. Rankin, Secretary, Chapel Hill, N. C. (Aug. 16-28)

University of North Dakota Coaching School, C. A. West, Director, Grand Forks, North Dakota (Aug. 23-28)

Northeastern University Coaching School, Prof. E. S. Parsons, Secretary, 316 Huntington Ave., Boston, Mass. (June 28-July 3)

Northern Coaching School, Alex J. Nemzek, Director, Moorhead, Minn. (Aug. 23-28)

Northwestern University Coaching School, K. L. Wilson, Director, Evanston, Ill. (Aug. 16-28)

Ohio State University Coaching School, L. W. St. John, Director, Columbus, Ohio (June 21-Sept. 3)

Pennsylvania State College Coaching School, Dr. Will Grant Chambers, Director, State College, Penn. (June 8-Aug. 27)

Pio Nono Coaching School, E. T. Dermody, Director, Milwaukee (St. Francis), Wisc. (Aug. 23-28)

Springfield College Basketball and Wrestling School, Dr. Elmer Berry, Director, Springfield, Mass. (June 28-July 31)

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Texas High School Football Coaches Association Coaching School, Ralph Wolf, Director, Waco, Texas (Aug. 2-7)

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West Texas State Coaching School, Al Baggett, Director, Canyon, Texas (June 6-12)

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University of Wisconsin Coaching School, Madison, Wisc. (June 28-Aug. 6)

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August 16-28

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Raymond Wolf P. H. Quinlan

W. F. Lange Bunn Hearn

John Vaughn M. Z. Ronman

Walter D. Skidmore M. D. Ranson

John Morris

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June 28-July 3

"Jock" Sutherland, University of Pittsburgh

"Matty" Bell, Southern Methodist University

"Dick" Harlow, Harvard University

"Howdy" Odell, Harvard University

"Tony" Hinkle, Butler University

"Doc" Kontoff, Northeastern University

Northern Coaching School

Bemidji, Minnesota

August 23-28

Harry Stuhldreher, University of Wisconsin

Frank Leahy, Fordham University

George Hauser, University of Minnesota

Howard Wood, Sioux Falls, South Dakota, High School

Clifford Wells, Logansport, Indiana, High School

W. H. Browne, University of Nebraska

"Chuck" Taylor

Don Gates, Fargo, North Dakota

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August 16-28

Lynn Waldorf, Northwestern University

Dana X. Bible, University of Texas

Doug Mills, University of Illinois

Dutch Lonborg, Northwestern University

Burt Ingwersen, Northwestern University

K. L. Wilson, Northwestern University

Tom Robinson, Northwestern University

Frank Hill, Northwestern University

Ted Payseur, Northwestern University

Paul Bennett, Northwestern University

Carl Erickson, Northwestern University

Ade Schumacher, Northwestern University

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Pio Nono Coaching School

August 23—August 28

Percy Clapp, Idaho

Wm. Chandler, Marquette

Tony Lawless, Fenwick High

Bernie Heselton, Milwaukee East

Guy Penwell, Milwaukee State

Frank Leahy, Fordham

Ad (Big Mitts) Gorysica, Pio Nono

Orv Dermody, Loyola (Los Angeles)

West Texas State Coaching School

June 6-12

"Jock" Sutherland, University of Pittsburgh

"Matty" Bell, Southern Methodist University

Frank Leahy, Fordham University

Blair Cherry, University of Texas

"Jimmy" St. Clair, Southern Methodist University

"Chuck" Taylor

Al Baggett, West Texas State College

Dr. Harry A. Scott, Rice Institute

Tuition, \$15.00—Room and Meals, \$12.50

West Virginia Coaching School

August 16-21

Bernie Bierman, University of Minnesota

C. C. Tallman, West Virginia University

Marshall Glenn, West Virginia University

Art Smith, West Virginia University

Tuition, \$10.00

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BECAUSE of unavoidable delay in the publication of the last issue of this magazine, the closing date of the contest for coaches announced on page 31 of the May issue has been extended to July 1. Cash prizes are offered for the best articles on the subject: "My Athletic Department Budget and How I Balanced It." The May issue contains complete details.

CHANGES OF ADDRESS for September should be sent in now.

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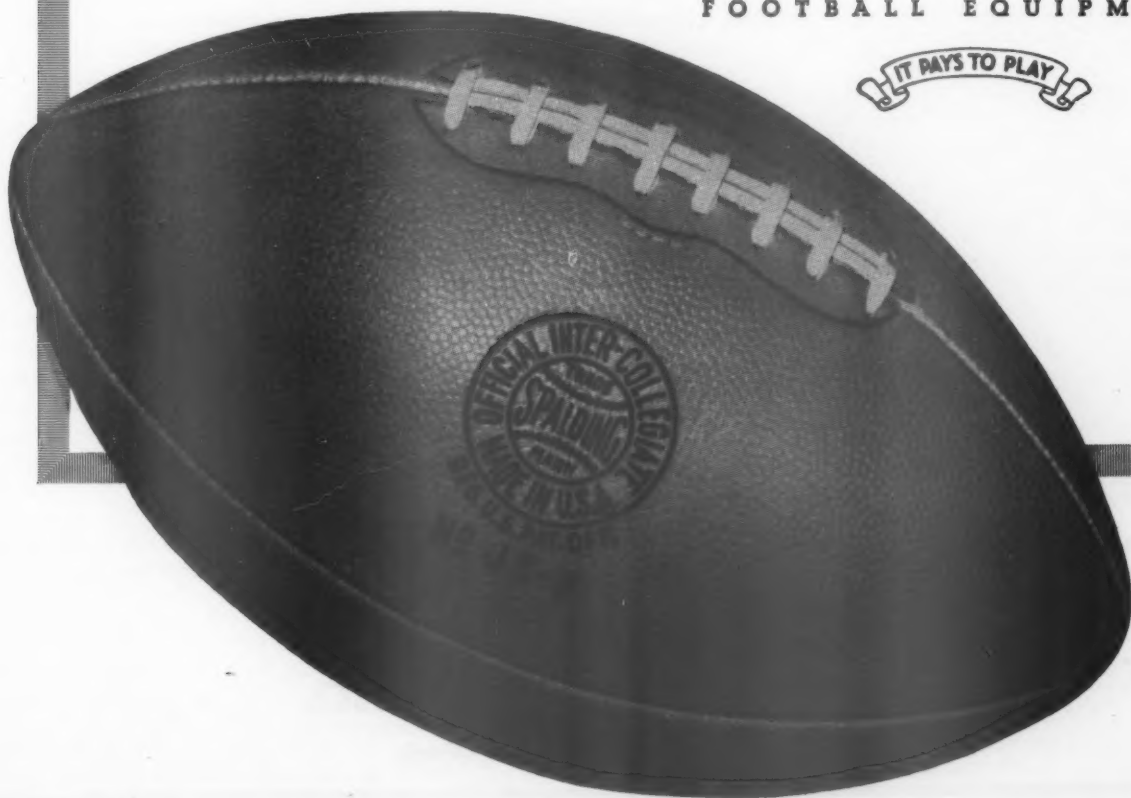
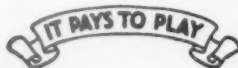
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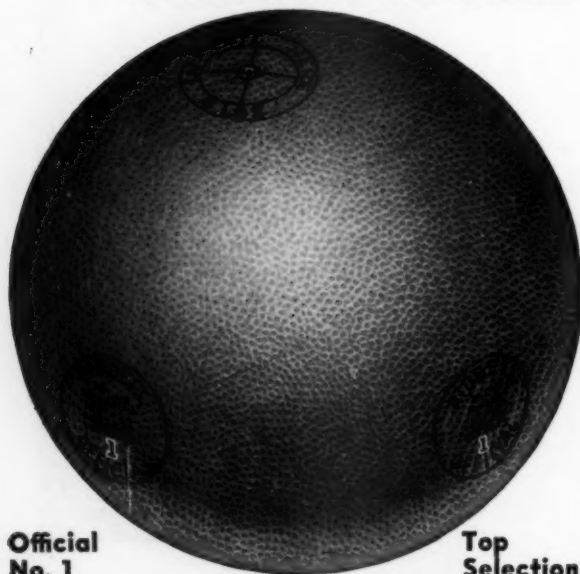
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Middle and Long Distance Running

By L. W. Olds
Michigan Normal College

ANY discussion of coaching methods in middle and long distance running must necessarily be very general, as track coaches throughout the country have for many years recognized that no two competitors in these events can be trained and coached in a similar manner. It is impossible to outline a training program in these events and expect that it will meet the needs of all competitors in the field. The middle and long distance runs include the quarter, half, mile and two-mile. These events are the most strenuous on the entire track program, requiring speed, endurance, courage and generalship on the part of the competitor.

It is very difficult to describe a type of physique associated with the middle and long distance events, but observation of hundreds of athletes over a number of years reveals certain outstanding characteristics.

Physical Requirements

The superior quarter-miler is usually rangy and powerfully built. The quarter-mile demands on the part of the athlete specializing in that event those qualities found in both the sprinter and the distance runner; namely, courage, speed, endurance and generalship. This type is well illustrated by the following well-known athletes: Williams of California, Smallwood and Fitch of Southern California and O'Brien of Syracuse.

The best half-miler is usually of medium height, having strong legs and well developed chest and arms. The athlete in this event must be a judge of pace and possess endurance, as well as a fair amount of sprinting ability. Such outstanding runners as Beetham of Ohio State, Rosenkrantz of Michigan Normal, Bush of Southern California and Davidson of Michigan possess these qualifications.

The best miler is, in general, above the average in height, possessing a long, lithe muscular development and a slow pulse rate. To be successful in the mile run, the runner must be an excellent judge of pace and must possess plenty of endurance with a certain amount of sprinting ability. San Romani of Kansas State Teachers College at Emporia, Venzke of Pennsylvania, Fenske of Wisconsin, and Brelsford of Michigan are among the fine examples of this type of runner.

In general the best two-miler, when compared to the miler, is of smaller stature and carries less weight. A slow pulse, unlimited endurance, a keen sense of pace and sprinting ability are paramount qualifications of the athlete who is a good two-miler. Men who make up the Honor Roll for 1936 in the two-mile illustrate very well this type. Among these are Lash and Deckard of Indiana, Stone of Michigan, Lochner of Oklahoma, Benner of Ohio State and Burrows of Stanford.

Preliminary Workouts

It is a good plan for the middle and long distance runner to start training during the fall season with long walks and cross-country running. Games such as speedball, soccer and touch football, together with gymnastics, are excellent forms of exercise for developing endurance in the early part of the season. Since there is usually a break in training between the fall and indoor seasons, it will be necessary to give the athlete a number of preliminary workouts to accustom him to the indoor conditions. During the time that the athlete is working on the boards, care should be taken to avoid muscle soreness or shin splints. Every track man should be continually on his guard to keep from taking starts which are too strenuous and from pounding too heavily on the

FOR fifteen years, L. W. Olds has been developing outstanding distance and cross-country runners at Michigan Normal College, Ypsilanti. He assisted in coaching the American Olympic team of 1932. An interesting account of a European tour by United States track and field athletes who were coached by Mr. Olds was published in the April, 1936, issue of this periodical. Illustrations used in connection with the present article are of National Collegiate Honor Roll runners listed in the 440-yard, 880-yard, mile and two-mile runs for the year 1936.

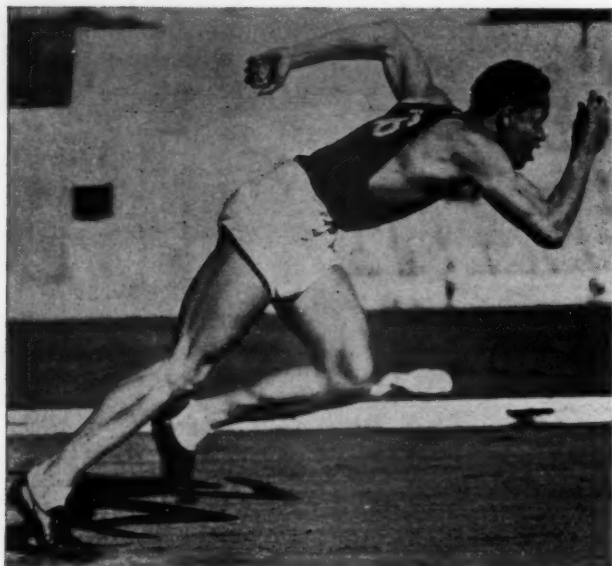


Marmaduke Hobbs, half-miler, leading the field in a Big Ten race. Hobbs is one of the many outstanding distance men developed at Indiana University.

boards when warming up during daily workouts. Skipping rope on the tumbling mats will eliminate shin splints and muscle soreness, and will serve as a warming-up exercise. After winter training indoors, the athlete should be in good physical condition for the start of the outdoor season.

During the first few weeks of the outdoor season, weather conditions are usually unsettled, and that is a dangerous time, therefore, for strenuous workouts. All athletes should be clad in sweat suits during this period, so as to avoid ruptured muscles or pulled tendons. A light pair of drawers worn under the running suit during this period has proved very beneficial in preventing leg injuries, especially to sprinters, hurdlers, vaulters and jumpers. These early workouts should consist of overdistance work interspersed with brisk walking. It is advisable to give speed work on warm days and overdistance work on cold ones.

It is very important that the athlete participating in middle and long distance events be a good judge of pace. The coach should endeavor to develop this judgment on the part of the beginner by the use of the watch in daily workouts, regardless of the pace or distance. The athlete, after a little practice, should be able to judge his pace over a given distance within two or three seconds. It is



(Left) Archie Williams,
University of California

(Below) Robert H. Small-
wood, University of Southern
California

a good plan to train the beginners with the veterans of the squads in these particular events. The following three plans of training athletes in the middle and long distance runs are used:

1. Three-fourths the distance at pace, for speed.
2. Full distance, somewhat slower, for judgment of distance.
3. Overdistance, at half pace, for finish and endurance.

Form

With the exception of the quarter-miler, whose form resembles that of the sprinter, the form of the middle distance and that of the long distance runner is very similar. The quarter-miler usually does not lift the knees quite so high, and carries the arms more relaxed. At the start and finish, the quarter-miler runs high on his toes, while there is a tendency to let down on the soles of the feet during the body of the race. Usually the athletes in the half-mile, mile and two-mile events travel on the soles of the feet. The coach should never permit beginners in these events to run flat-footed. A long, swinging stride with weight carried close to the ground is a characteristic form of runners in these events.

Warming Up

It is very essential for success in distance running for the athlete to take, from fifteen to twenty minutes before the race, a thorough and carefully planned warm-up. This should include stretching and bending exercises, followed by jogging from a half mile to a mile, interspersed with wind sprints, which will not only prevent injury, but will hasten the physiological phenomenon known as "second wind."

Many athletes become nervous before the race and limit the warm-up procedure for fear it will weaken them. The Finns, the greatest distance runners in the world today, are painstaking in their warm-ups, devoting from half to three-quarters of



an hour in preparation for any race in which they compete.

Generalship

The greatest test of generalship comes in the running of the quarter-mile race. At the start, the runners must sprint fifty to seventy-five yards to secure good positions near the curb before reaching the curve. A fast float should be maintained on the first curve and back stretch. It is important to secure the lead in the race before reaching the final curve. The last curve should be covered at an increased rate of speed, which terminates in the final sprint for the finish. The beginner should learn to move up through a field of runners with the elbows kept wide so as to prevent being jostled or having the stride broken. If the pace set by the leader is not fast enough, the competitor should take the lead by a quick spurt and then set his own pace, conserving sufficient strength and speed for the final sprint.

The longer the race, the more important is the judgment of pace. In the half-mile,

mile and two-mile events, it is best for the runner to follow pace rather than set it, especially on a slow track or on a windy day. The runner should be instructed to secure a good position close to the pole, not allowing the leader to get too far out in front. By acquiring judgment of pace, the beginner in the half, mile, or two-mile races will not be pulled off his legs by a pacemaker or an inexperienced competitor. The coach should instruct a runner in these events to set pace himself under the following conditions: if the pace is too fast, if the pace is too slow or if the opponent has a strong sprint. The athlete possessing a strong finish will endeavor to conserve his sprint by taking the lead and slowing down the pace. On the other hand, the runner lacking sprinting ability should set the pace from the very start of the race and endeavor to sap the strength of the sprinting type of opponent. An athlete in these events should learn to sprint in the final part of the race. This may be accomplished by leaning forward, getting high on the toes and vigorously increasing the shoulder and arm action.

In the half-mile, mile and two-mile events, usually the first and last quarters should be faster, while the second and third may be about even. However, it is worth while to strive for even time in all quarters, in view of Paavo Nurmi's marvelous performances, backed by his speed theory of maintaining an even pace throughout the race, which did much to revolutionize modern distance running in America.

Along with what has been said about preparing for participation in track competition, the following schedules may be found profitable to adopt. The work schedules should be preceded by at least six weeks of preliminary training and should be varied according to the type of athlete, intensity of competition and weather conditions.

Quarter-Mile Work Schedule

MONDAY—Warm up at least 5 minutes by jogging on grass.

Run 300 yards at quarter-mile pace.

Walk until rested.

Swing through a slow quarter.

Finish with work on pulley weights and bars.

TUESDAY—Warm up by jogging on grass.

Take several short dashes with gun.

Run a quarter-mile at three-quarters speed; finish with burst of speed.

Walk briskly until rested.

Finish with work on pulley weights and bars.

WEDNESDAY—Warm up by jogging on grass.

Run 600 yards slowly.

Run 150 yards fast.

Walk until rested.

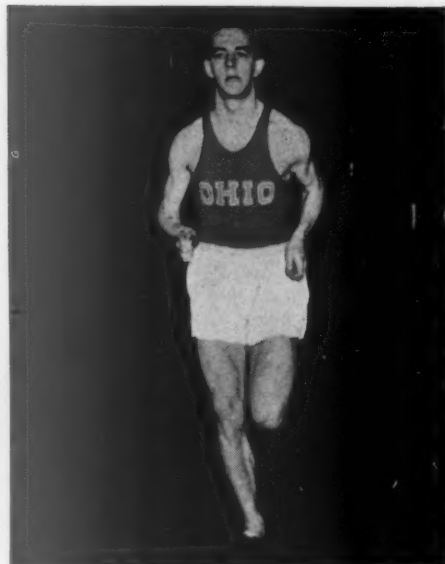
Finish with work on pulley weights and bars.



Alfred Fitch, University of Southern California



Jack Weiershauser, Stanford University



Charles Beetham, Ohio State University



Harold Cagle, Oklahoma Baptist University



James Cassin, University of Southern California



Abraham Rosenkrantz, Michigan Normal College



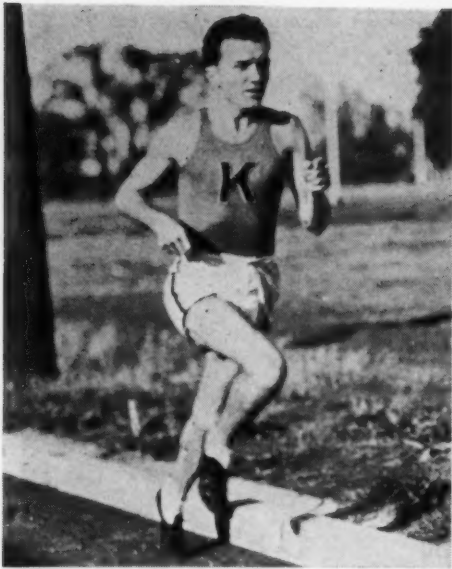
Eddie O'Brien, Syracuse University



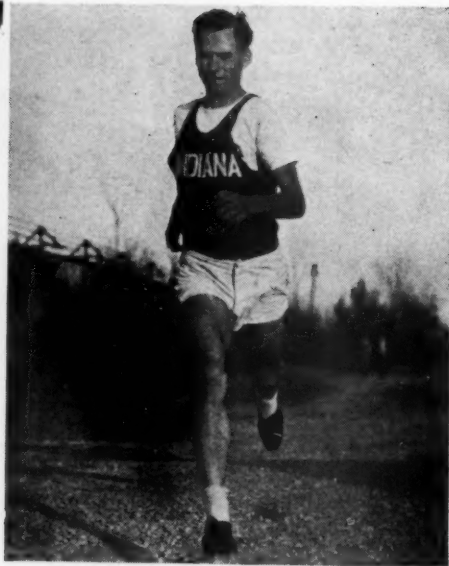
Ross Bush, University of Southern California



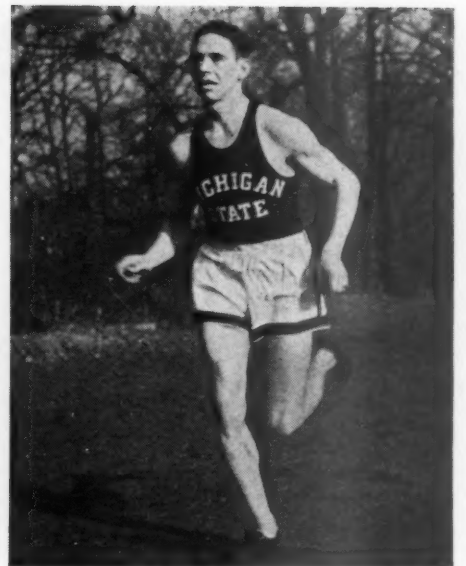
Howard Davidson, University of Michigan



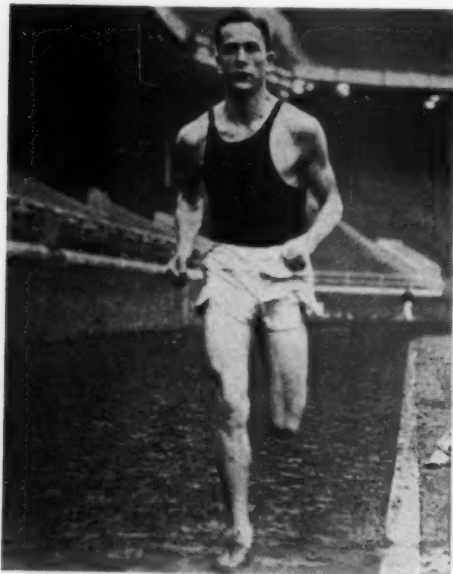
Archie San Romani, Kansas State Teachers College, Emporia



Don Lash, Indiana University



Kenneth A. Waite, Michigan State College



Gene Venzke, University of Pennsylvania



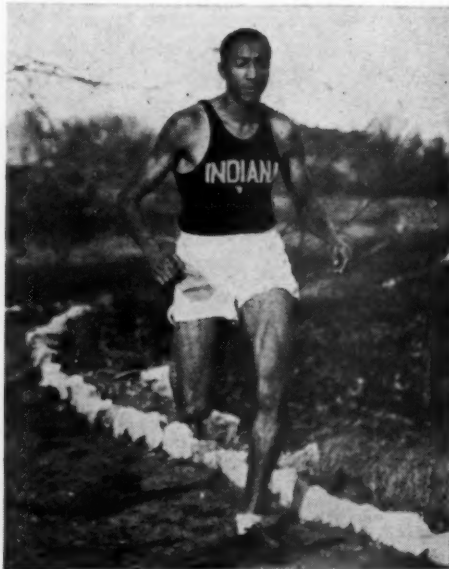
Thomas Deckard, Indiana University



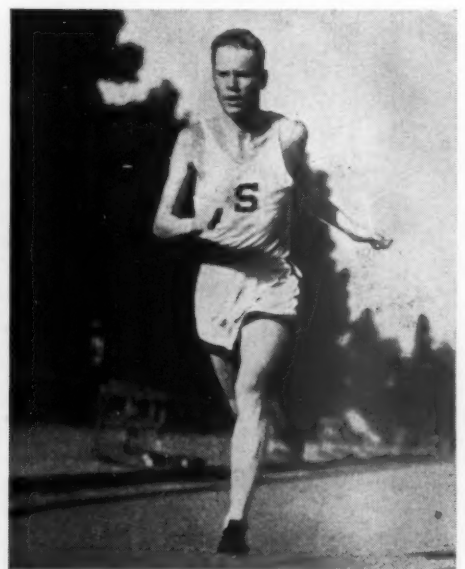
Floyd Lochner, University of Oklahoma



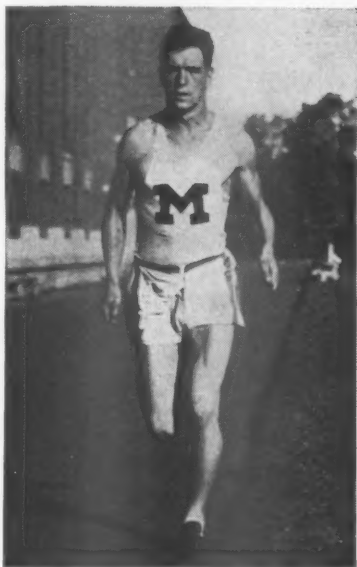
Clayton E. Brelsford, University of Michigan



James Smith, Indiana University



Clayton Burrows, Stanford University



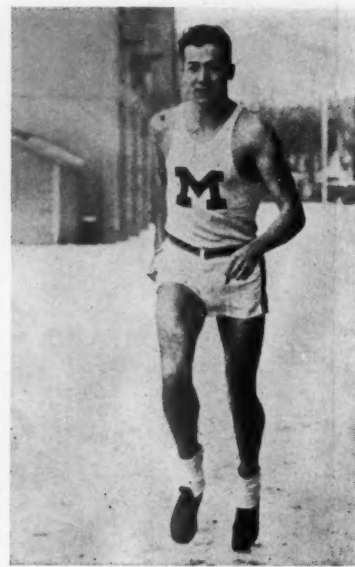
Walter D. Stone, University of Michigan



Thomas Sexton, Ohio State University



Paul Benner, Ohio State University



William C. Staehle, University of Michigan

THURSDAY—Warm up on grass.
Run 300 yards at quarter-mile pace.
Walk until rested.
Swing through a slow quarter.
Finish with work on pulley weights and bars.

FRIDAY—Rest. (Report for light rubdown.)
SATURDAY—Time trials for competition.

Half-Mile Work Schedule

MONDAY—Warm up at least five minutes by jogging on grass.

Take several short dashes with gun.
Run slow 880 yards with even quarters.
Walk until rested.
Run 440 yards at half-mile pace.
Finish with work on weights and bars.
(Continued on page 43)

A Successful Community Swimming Program

By Howard T. Ploessel
Huntington Park, California, High School

THE success last summer of the swimming program at the high school in Huntington Park, California, is an outstanding example of a worthwhile community activity. In many cities throughout the country, the school has become the leading recreation center and is serving the entire family. This is especially true of the Huntington Park High School.

Even with its close proximity to the beach and to other pools, the Huntington Park High School plunge has enjoyed unusual success. A total of 23,746 people paid admission to the pool during the past summer period, June 22nd to September 12th, inclusive.

Advertising the Pool

The success or failure of a pool depends a great deal on how well the manager or director can "sell" swimming. Too many directors or managers of public school pools pay little or no attention to this most important part of their duties. There is more to this job of managing a school pool than just opening it in the morning, clos-

ing it at night and taking care of the financial records.

THE swimming program carried on by Huntington Park High School in California is an excellent example of what may be done by progressive institutions in serving the people of the community. Howard T. Ploessel, who is in charge of the Huntington Park High School pool, has written this article in response to a number of requests for information which he received following the publication in this magazine of a previous article on swimming.

I learned long ago, too, that getting crowds to the pool is one thing; keeping them another. If we were to get crowds to the school plunge, we not only had to offer the public a clean, sanitary swimming pool, but we had to advertise. Support of our local newspapers had to be secured. We had to have the complete co-operation and support of the service clubs, fraternal organizations, churches, parent-teacher associations, Boy Scouts, Girl Scouts and Campfire Girls. To keep the crowds com-

ing, we had to have a program that would appeal to the masses of the people.

Operating the Pool

Realizing the above facts, we set out to promote a program of educational as well as recreational swimming. While other pools were satisfied they were doing their share by simply offering swimming facilities to the public, the Huntington Park High School came out with an extensive educational program.

"Every person a swimmer and every swimmer a life saver!" That was the aim of the management of the Huntington Park High School pool.

The swimming pool is operated by the Huntington Park High School student body under the direction of the Los Angeles City Board of Education. It is operated to meet expenses and not necessarily to make a profit.

The plunge is an indoor one of regulation size, being 60 feet wide and 75 feet long. It has a spoon-shaped bottom, ranging from 3½ feet in the shallow end to 10 feet under the diving boards. Regu-



Huntington Park High School Swimming Pool

lation 3 and 10 foot springboards are part of its equipment. A spectators' gallery seats 500 people.

Admission prices last summer were 15 cents for adults and 10 cents for children. All admission fees included a towel and locker.

The following swimming schedule was set up:

DAY SWIMMING

Tuesdays to Saturdays, inclusive.

9:00 to 11:45 A. M., Boys.

1:00 to 2:45 P. M., Girls and Women.

3:00 to 4:45 P. M., Men, Women, Children.

NIGHT SWIMMING

Mondays to Fridays, inclusive.

7:00 to 8:45 P. M., Men, Women, Children.

Swimmers furnished their own bathing suits, and all women and girls were compelled to wear caps.

Each swimmer, before entering the pool, was compelled to take a cleansing bath, and on his way into the pool he had to walk through a foot bath containing a disinfectant. As he entered the pool, the life guard checked him over to see that he had taken a good shower and that there were no sores, cuts or infections on his body.

The Swimming Program

Before children were allowed in the deep water, they were required to swim across the pool. By having each person pass this test we were able to separate the swimmers from the non-swimmers. It was the latter class with which we worked primarily during the first few weeks of the summer.

Swimming classes for all soon became very popular. Each class was divided into

three groups: beginners, intermediates and swimmers. For a swimmer to advance from one group to another, he was required to pass certain swimming tests.

In order to offer something the boy or girl might have an incentive to work toward, a unique system of tests was worked out. As awards for successfully completing certain requirements, beautifully printed swimming diplomas were given away. There were five tests in all. Swimmers were given diplomas for passing three of these tests, and Red Cross pins for the other two.

When the beginner could swim across the school plunge, a distance of 20 yards, he was given a Junior Swimming Diploma. A total of 1,716 people passed this test and received their diplomas.

The next test required the beginner to jump into water deeper than he was tall, swim 25 feet, turn and return 25 feet. If he was successful, as 1,521 individuals were, he received a Red Cross Beginner's Pin.

The intermediate swimming test was next and required the swimmer to swim 50 yards in good form. In all, 912 boys and girls passed this test and received Intermediate Swimming Diplomas.

The senior swimming test and the Red Cross swimmer's test are nearly identical. The requirements for passing these tests included swimming 50 yards on the back, treading water 30 seconds, swimming 100 yards using side and one other standard stroke, floating motionless, recovering object in 6 to 8 feet of water, doing a good front or racing dive from the side of the pool and witnessing a demonstration of artificial respiration. In all, 566 passed the senior swimming test and received Senior

Swimming Diplomas; 505 passed the Red Cross swimmer's test and were awarded swimmer's pins.

You will note that these tests consisted of one step after the other in the art of learning to swim. In all 5,220 swimming tests were passed during the summer.

Results of the Program

Besides being an incentive for the children, the giving of these awards proved of great value as a means of advertising our pool. The boys and girls took the awards home and showed them to their parents and friends. Others saw the diplomas and pins and came to the pool in an effort to win one. The diplomas were printed in the school print shop and cost but a small fraction of a cent each. The beginner's and swimmer's pins were furnished free by the local chapter of the American Red Cross. All managers and directors of school pools would do well to contact their local Red Cross office before their season gets under way. The Red Cross people are very willing to co-operate and they have information that will prove of great help to all pool managers and directors.

Before leaving the swimming tests, we should consider them from still another angle. The pool manager will get a great deal of satisfaction from being able to point to so many hundreds of people who have accomplished these various feats in the water. It is one thing to say that hundreds swam in the pool during the summer season. It is another to say that hundreds learned to swim and were successful in passing various swimming tests, especially when there are the names and addresses to prove the assertion.

As an added attraction, aquatic meets were held weekly at the school plunge. Races for all, swimmers and beginners as well, were held each week. Swimming meets are always an attraction at any pool, provided too many of them are not staged.

In all, we had twenty-one swimming meets for both boys and girls. These took place on Saturdays and, once in a while, in mid-week. Inexpensive ribbons were used as prizes. To give you some idea of the great interest taken in the summer meets let me say that 1,873 contestants participated. Our attendance was always greater on the days we held swimming meets.

Pool managers should keep in mind that the patron who is made to enjoy his swim and who has something to work for is much more apt to come back for more swims than the one who merely splashes around.

People must be sold on the idea of swimming. A well-rounded swimming program is one that promotes educational as well as recreational swimming. Teaching boys and girls to swim and dive, and to enjoy themselves in the water, and making it a pleasure for the patrons to swim should be the objectives of pool managers.



Captain Norbert Burgess, of the University of Chicago tennis team (above). Paired with Norman Bickel, Burgess went to the final round of the 1936 National Intercollegiate Tennis Championships. This is the best showing ever made by a Big Ten Conference team in the Intercollegiates.

Norman Bickel (right), University of Chicago tennis player, winner of the Big Ten Conference singles championship in 1936 and, with Norbert Burgess, winner of the Big Ten doubles title.



Physical Condition in Tennis

By Harry Hillman
Dartmouth College

ALTHOUGH Harry Hillman is known principally as an outstanding coach of track and field teams, he has spent twenty years as trainer and conditioner of Dartmouth College football teams. In the summer of 1935, he went to England as conditioner of the United States Davis Cup team. This article reveals some of the problems of the top-flight tennis player and illustrates the value of careful and intelligent conditioning.

IN the great tennis tournaments and particularly the Davis Cup matches, the players must prepare themselves seriously and under careful guidance in order to stand up under the strain of the usual five set matches.

Many people who watch the big matches have little conception of the pressure of such competitions. Obviously, when a player is competing for the United States with a whole nation hoping for victory, the nerve strain is hard on him. The desire to win creates a tension which is exhausting to the player unless he knows how to relax at every opportunity.

Davis Cup Play

The writer visited England in 1935 to help the players on the United States Davis Cup team keep in good physical condition and, of course, he had an opportunity to study the physical and psychological strains and stresses which grip the players who are fighting for this precious cup.

Candidates for the Davis Cup team must play several preliminary tournaments. Members of the group that competed in England in 1935, besides taking part in a number of more or less local tournaments, had to play matches in the Western zone and win these matches in

order to be eligible for the European zone final match, the winner of which was entitled to play for the cup. Don Budge, Bitzy Grant and Gene Mako were selected to compete in Mexico for the American zone final. The change in climate, food and water so affected the boys that Budge lost twelve pounds, and Mako lost about the same amount of weight. Then the boys traveled back to New York to sail for England, both about ten pounds light in weight. The first thing that had to be done was, if possible, to have the boys regain this lost poundage. So they rested on the ocean trip and gained back most of their weight. As Wilmer Allison and John Van Ryn did not play in Mexico, these players left the United States in good condition physically.

The boys upon arrival in England again started a strenuous campaign by practicing regularly, when rain did not interfere, and going through both the Queen's matches, which consumed over a week, and the Wimbledon tournament, which lasted nearly two weeks. After these matches a few days' rest was suggested before the final interzone match with Germany.

Previous to the arrival in England of the United States Davis Cup team, Mrs. Helen Wills Moody, six times winner of the Wimbledon ladies' final, which really

means the world's championship, had been playing in some of the minor tournaments. The experts agreed that in these matches Mrs. Moody had lost none of her playing strokes, but opinion was unanimous that she had slowed up considerably. Therefore, little surprise was evinced when she lost to Kay Stammers.

Unusual Tennis Practice

This defeat worried Mrs. Moody, as she realized that, unless she could speed up her play, her chances would be slim in reaching the finals at Wimbledon. Having three weeks or more in which to correct this fault, after consultation with Mr. Joseph Wear, the non-playing captain of the United States team, and with the writer, Mrs. Moody decided to do certain work to increase her speed.

On the writer's advice, she daily practiced starts similar to those of a track sprinter. The writer also suggested that she do the weaving exercises as practiced by many backfield candidates for American football teams. The first practice would help her speed. The second would facilitate a quick change in direction, and would thus enable her to cover the court better. Mrs. Moody worked faithfully on these exercises and continued them right up to her final, dramatic match with Miss Helen Jacobs, one of the most gruelling contests ever played by women. Mrs. Moody felt that this speed and weaving work was a great help in this match, in which condition played an important part. Mrs.

(Continued on page 41)

More Baseball Practice Session Talks

By H. S. DeGroat
Springfield College

THE coach will find that he can teach more baseball if he carefully plans his practice session talks and presents them regularly than if he leaves all of his oral instruction for rainy days.

Sample practice session talks included in an article published last month covered the subjects of batting and running the bases. This month, several new topics are discussed in sample talks to players.

Runners Caught Between Bases

The first sample practice session talk is on the one-throw put-out of runners caught between bases, the Japan style of put-out and the bluff peg.

"This afternoon I need to make sure that you can run down any players caught between bases. We use the one-throw put-out in our system, but if you fail to get your man in the first attempt and he remains in 'the pickle,' you should immediately swing into the four-man Japan style of put-out.

"Even our veterans will need to review these fundamentals before I shall be satisfied to put any of them in a game. There are two important things in the one-throw put-out. These are the timing of the throw and the position of the baseman making the put-out. You are the man with the ball. As you hold it above your shoulder in full sight of the baseman, you must chase the runner back at a good rate of speed and time your throw so that the arrival of the ball beats the runner,

IN the May issue of this publication, H. S. DeGroat presented an outline of topics to be discussed by baseball coaches in practice session talks. He also presented several sample talks dealing with subjects mentioned in the outline. In this issue, Coach DeGroat continues the discussion of the outline subjects; Topic XI, "Putting out runners caught between bases"; the last subhead of Topic XII, "Delayed steal of home"; and most of Topic XV, "Double plays possible." Both high school and college baseball players should benefit from a reading of these talks. Coaches may find in DeGroat's explanations a simple method of presenting subjects that are unfamiliar to many young players. This is the fourth of a series of articles by DeGroat, who has been coaching baseball for twenty-three years.

and the runner's speed carries him directly into the baseman to whom the ball is thrown and by whom the put-out is made. You know the reason for keeping the ball in sight. Do not make any quick fake throws as you chase the runner. To do so may look like 'driving the cows home.' Keep your throwing arm cocked and then all that is necessary is for you to make a short, snappy movement of the arm when you throw the ball. The ball will be in plain view all the time. Our baseman must take a position about six feet off the base. This will prevent the runner from sliding safely in to the base. If the timing of the throw is right, the ball will be received and the runner put out at once.



The first baseman has just received the ball for a one-throw put-out of the runner. The first baseman is off base in the proper position, and the second baseman (at the extreme left) has timed his throw exactly. The pitcher (at the extreme right) is swinging into position behind the first baseman to back up the play.

"If the timing of your throw is wrong, I shall expect you to run the baserunner down with the four-man Japan system. Usually when your timing is off you throw too soon, and the runner starts back. If you make more than three throws in trapping the runner, you need more practice. If a runner is caught off first base, I expect the pitcher to back up first, while the first baseman, the second baseman and the shortstop, with the pitcher, make up the four men. If a runner is caught off second base, the pitcher should back up the third baseman. If a runner is caught off third base, the pitcher should back up the catcher.

"The Japan system works this way. Remember: we try for a one-throw put-out first and if it fails we swing right into the Japan system. This means that if the runner is chased back toward first base and the throw arrives too soon the first baseman must chase the runner back a few steps only and then throw to the second baseman. After throwing, the first baseman must pass the runner on the right and back up the shortstop. The second baseman now may try to time his throw to the pitcher, who has taken the first baseman's position six feet off the base. The second baseman also passes the runner on the right after he throws and then backs up the pitcher. The circle around the runner should become smaller and smaller as each man throws and goes to his right. As I have just said, if you do not put out the runner in three throws or less you need more practice. The reason for practicing this system is that the one-throw put-out cannot be used in every situation. The one-throw method requires that you be fairly close to the runner as he is chased back."

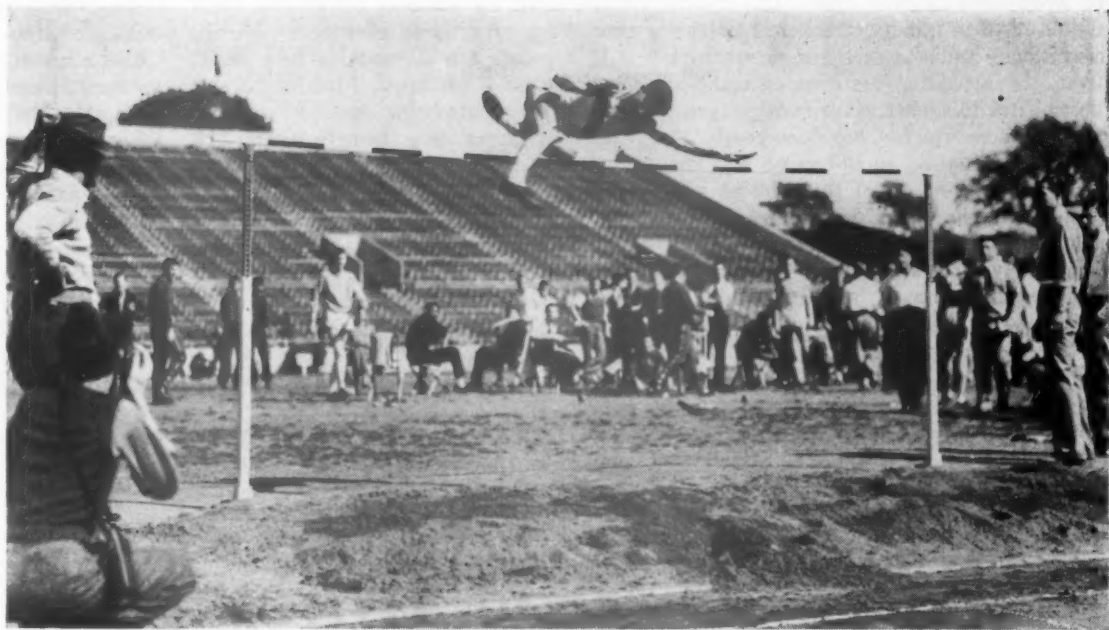
The Bluff Peg

The subject of the next few paragraphs is the bluff peg, with its various uses.

"There are three places where the bluff peg may be used effectively in the game of baseball. One is in this putting out of runners caught between bases. If you hold the ball with cocked arm, you are prepared for a bluff peg. As you chase the runner back, you might try such a throw. You must bring your arm far down, just as if you had thrown. If you make a good bluff just as the runner looks at you, he may be fooled and attempt to stop and come back. This will allow you

(Continued on page 38)

A scene at the 1937 Texas Relays. Jack Vickrey, sensational high jumper of the University of Texas, is shown clearing the bar on one of his leaps that led to a Texas Relays record of 6 feet 7 inches. Vickrey also set a Southwest Conference record of 6 feet 6½ inches this season.



The Five Major Collegiate Relay Meets

COMPARISON of marks made in track and field meets provides entertainment wherever coaches gather. Even though these comparisons are lacking in validity, because of wide differences in weather conditions, tracks and other variables, they are nevertheless of interest; the marks are at least indicative of relative ability.

The five important collegiate relay meets of the United States were held in the spring of 1937 under a wide variety of climatic conditions. Even though the Kansas Relays were run early in the season, the weather was warm and clear. On the other hand, weather conditions at the Drake Relays were decidedly unfavorable. The West Coast Relays, held at Fresno State College, were run under ideal cli-

matic conditions. "During the afternoon the temperature was about 95 degrees, with low humidity, and the wind velocity at no time exceeded three miles an hour," states J. Flint Hanner, Fresno State track coach. "During the evening from seven to ten o'clock, when the Intercollegiate Class finals were run, the temperature was approximately 85 degrees for the entire time, and the wind velocity at no time was more than three miles an hour."

Perhaps the fact that the West Coast Relays were held later in the season than the other meets accounts in part for the superiority of marks made at this meet. Construction of the Fresno track is another factor contributing to the excellent performances. Of this Mr. Hanner writes, "The track is of clay composition, which makes it exceedingly fast. The reason that we can use a track of this kind is the fact that we rarely have rain from the first

at no time exceeded three miles an hour," states J. Flint Hanner, Fresno State track coach. "During the evening from seven to ten o'clock, when the Intercollegiate Class finals were run, the temperature was approximately 85 degrees for the entire time, and the wind velocity at no time was more than three miles an hour."

Comparison of Major Collegiate Relay Records, 1937

Events	Approved World Record	1937 Texas Relays	1937 Kansas Relays	1937 Drake Relays	1937 Penn Relays	1937 West Coast Relays
Medley Relay	10 :12.7	10 :25.7	10 :16.3	10 :21	10 :04.7	10 :22.5
440-yard Relay	40.8	41.5	41.9	42.6	42.1	40.9
880-yard Relay	1 :25.8	1 :27	1 :27.7	1 :28.8	1 :27.2	1 :25
Mile Relay	3 :12.6	3 :19.4	3 :19.8	3 :17.2	3 :20.5	3 :12.8
Two-mile Relay	7 :41.4	7 :47.6	7 :46.5	7 :54	7 :53.8	7 :45.1
100-yard Dash	9.4	9.7	10.	9.8	9.8	9.7
120-yard High Hurdles.....	14.1	14.3	15.	14.9	14.6	14.4
Broad Jump	26' 8¼"	23' 4½"	24' 1¾"	25' 5½"	24' 1"	24' 6½"
Pole Vault	14' 6½"	13' 6"	13' 6"	*13' ½"	13' 5"	14' 4½"
Shot Put	57' 1"	51' 11¾"	51' 6"	51' 5½"	50' 2¾"	52' 10"
Discus	174' 2¼"	146' 10¼"	144' 3¾"	149.09'	148' 2½"	152' 9"
Javelin	251' 6"	219' 8½"	229' 2¼"	218.09'	213' 11"	214' 11¼"
High Jump	6' 9¾"	6' 7"	6' 6¾"	6' 3¾"	6' 5"	6' 6"

* Indoor.

of April until October first. The combination of these factors (track and weather conditions) and the excellent competition from the attending institutions make it possible for this meet to turn out the great performances which it has done yearly."

This explanation should in no way detract from the glory of the athletes who competed in the West Coast Relays. These men bettered one accepted world mark and closely approached three others.

An examination of winning marks in the five relay meets shows the West Coast Relays superior in seven of the thirteen principal events common to all and in a tie with the Texas Relays in an eighth event. Texas Relay marks are superior to all others in two events and in a tie with the West Coast mark in one event. In one

event each, the Kansas, Drake and Penn marks are superior to all others.

If 5 points are allowed for first place, 4 for second, 3 for third, 2 for fourth and 1 for fifth, points being divided evenly in case of a tie, relative strength of the five meets for the 1937 season may be determined. Such a tabulation reveals that the West Coast Relays lead with 54½ points. The Texas Relays are second with 44 points. The Kansas Relays are third with 36½ points. In fourth and fifth places are the two oldest relay meets in the country, the Drake Relays with 30½ points and the Penn Relays with 29½ points.

The events in which the West Coast Relays show superiority are the 440-yard, the 880-yard, the mile and the two-mile

relays; the pole vault, shot put and discus. In the 100-yard dash, the West Coast mark ties that of the Texas Relays. In the 120-yard high hurdles and the high jump, the Texas Relay marks lead all the others. The superior Kansas Relay mark is in the javelin throw. The Drake Relay mark which bettered all the others is in the broad jump. The mark made at the Penn Relays in the medley relay is better than the recognized world record, as well as records made in this event at the other 1937 relay meets. The world mark made at the West Coast meet was in the 880-yard relay. The table records in detail the marks made by winning teams or individuals in the thirteen principal events common to all five relay meets. The world mark in each event is also listed.

The Organic Efficiency Test in the Athletic Program

By J. H. McCurdy, M.D., and Leonard A. Larson

Springfield College

PHYSICAL educators and those interested in the conditioning and training of athletes have been seeking a test which will measure the organic efficiency of athletes. The Organic Efficiency Test, which will be described later, was developed to serve as a supplement to the regular medical examination given before participation in athletics. The medical examination is necessary to determine the organic soundness of the individual, whereas the Organic Efficiency Test indicates the functional (respiratory and circulatory) fitness for activity. If these two examinations were given before participating in athletics, there would probably be a number of people eliminated from strenuous activities, or given a greater length of time in training to reach the peak of condition. An individual low in functional fitness should not be permitted to take part in a strenuous training program until recovery has occurred.

The purpose of the medical examination is to determine organic soundness. If through the medical examination the individual is found to have an organic defect he is eliminated from participation in athletics, or given a program adapted to his needs. However, an individual may be organically sound, yet far from ready for a strenuous training program in athletics. The medical examination will not indicate physiological fitness; therefore, it is necessary to supplement the medical examination with an organic functional test that will indicate this condition or fitness. The Organic Efficiency Test was developed for this purpose.

ONE of the pioneers in physical education and formerly Medical Director of the International Y. M. C. A. College and Dean of the Graduate Course of the Natural Science Division, Dr. J. H. McCurdy has retired from active service and is devoting his time to perfecting the test described in this article. Leonard A. Larson, an instructor at Springfield College, is now studying for his doctorate at New York University, and has assisted Dr. McCurdy in evaluating the items measured by every available scientific procedure. Dr. G. G. Deaver of the School of Education of New York University, who has closely followed the development of this test, has the following to say concerning it: "The measurement of the size or function of the various organs which will tell the coach or physician the organic efficiency of the athlete has been a major problem in physical education for many years. The tests developed by Schneider, Barach, Foster, McCloy and others claimed to measure organic efficiency, but all of them failed in some particular. I am convinced that no other test has been tried on so many men of all ages, athletes of all kinds, including Olympic and world champions, as the McCurdy-Larson Test. It seems to measure all it claims to measure. Mr. Larson and Glenn Cunningham are both studying for their doctor's degree in physical education at New York University. During the past few months I have followed the results of the tests on Cunningham. The record of Cunningham in certain items of this test has never been equaled by any other athlete tested. His results on the test indicate an organic efficiency far above the normal."

In the development of the Organic Efficiency Test, twenty-six organic functional (circulatory and respiratory) measures were selected to determine organic efficiency.¹ These measures were secured on two groups of people of widely differing physical condition: the Springfield College Infirmary patients² as the "Poor" Condition group, and the Springfield College varsity swimmers as the "Good" Condition group. The bi-serial correlation process was used in determining the significant measures of the twenty-six to reveal organic functional fitness. Of the twenty-six items selected for measuring functional fitness the significant ones were found to be as follows³: sitting diastolic pressure, breath-holding twenty seconds after standard stair-climbing exercise, difference between standing normal pulse rate and pulse rate two minutes after standard exercise, standing pulse pressure, and vital capacity corrected to body temperature.

These five functional measures were weighted and combined into a test by the use of the multiple correlation procedure. The Index Score in the Organic Efficiency Test is the summation of the scores from each of the five measures.

If an individual is found in the lower

¹McCurdy, J. H., and Larson, L. A., *Measurement of Organic Efficiency for Prediction of Physical Condition*, Supplement to *Research Quarterly*, VI, 2 (May, 1935), p. 40.

²Only those patients were examined who had had a fever and were in bed for two or more days. The examination was given after the body temperature became normal.

³McCurdy, J. H., and Larson, L. A., *The Measurement of Organic Efficiency for Prediction of Physical Condition in Convalescent Patients*, *Research Quarterly*, VI, 4 (December 1935), p. 83.

classifications on the Organic Efficiency Test scale, a physiological interpretation is made in terms of the five measures in the test. If the score is low it means that the individual has a higher sitting diastolic pressure than the average college student or athlete, a lower breath-holding ability, a slower pulse rate return to normal, a lower pulse pressure, or a lower vital capacity. In exceptional cases a certain person may have a higher score in one item than in others; for instance a player of wind instruments with respect to vital capacity.

An individual receiving a low score in the test should not follow the same strenuous routine in training as one in the upper classification. One who is superior in organic functional fitness could follow a training program without undue strain on the body processes. The inferior person, however, being in the lower classifications in terms of efficiency or fitness, would in his effort to continue on the same level in the training routine place an undue strain on the bodily processes.

The coach, therefore, needs to be guided by some objective measure of organic efficiency or fitness in order to build a program of training or conditioning in terms of intensity. He needs also to eliminate those people at the beginning who cannot safely participate in a strenuous program, or place them in a group related to their ability.

The Organic Efficiency Test does not indicate skill necessary for each particular sport. Of course, the skill acquired by an individual in a sport must be considered before the Organic Efficiency Test score is interpreted in terms of activity. However, if an individual is found in any of the lower three classifications on the Organic Efficiency Test, regardless of his skill, he should not be allowed to participate in strenuous activity until he has regained his fitness. This person should be given a more thorough medical and organic functional examination.

Equipment and Time Needed for Test

In order properly to conduct the Organic Efficiency Test, the examiner should in the beginning spend at least fifteen minutes on each individual. This time can be lowered after the examiner is thoroughly acquainted with the test routine and testing technique. It is very important to know the extent of activity of the individual previous to the examination. If he has taken part in activity, the examination should be repeated the following day before activity. If the subject is nervous, the examination should be given again under different conditions. Usually, allowing the subject to talk about some interesting topic will eliminate the nervousness.

If an individual is found to score in the lower classifications on the test, the test should be repeated again the next day before final suggestions are made in regard to activity.

TABLE I

Name	Age.....	Weight.....
Date	Hour.....	
1. Pulse Rate. Standing Normal. 1. 2.		
2. Blood Pressure		
(a) Systolic Pressure	(b) Diastolic	(c) Pulse Pressure
	(4th phase)	
Sitting 1. 2.	1. 2.	1. 2.
Standing 1. 2.	1. 2.	1. 2.
3. Vital Capacity		
1. Seconds Temperature Corrected Volume.....		
2. Seconds Temperature Corrected Volume.....		
4. Exercise and Measurements following:		
(a) Exercise. Number of ascents 1. 2.		
(b) Breath-holding 20 secs. after exercise 1. 2.		
(c) Pulse Rate (standing) 2 mins. after exercise 1. 2.		

TABLE II

Name	Date			
Organic Measurements				
	Raw Score	T-Score	T-Score x Weighting	Classification
1. Sitting Diastolic Pressure	_____	_____	_____	438-up Excellent 90 402-437 Very Good 80 373-401 Good 70
2. Breath-Holding 20 Secs. after Exerc.	_____	_____	_____	321-372 Above Avg. 60 320 Average 50 291-319 Below Avg. 40
3. Std. P. R. minus P. R. 2 Mins. after Exerc.	_____	_____	_____	259-290 Fair 30 231-258 Poor 20 188-230 Very Poor 10
4. Std. Pulse Pressure	_____	_____	_____	187-down Extremely Poor
5. Vital Capacity	_____	_____	_____	
Classification _____	Index Score—			

The equipment necessary to conduct the test is as follows: Stop-watch (double action), stairs, blood pressure equipment (sphygmomanometer and stethoscope) and flarimeter.⁴

Method of Conducting the Test

When examining an individual using the Organic Efficiency Test, it is necessary to have examining room conditions conducive to the best results. The examination should not be given if the subject has exercised vigorously some time during the day of the test. If the examination is given after exercise it will give abnormal results and should be repeated the following day

⁴This equipment may be purchased from one of the manufacturers of medical equipment; name and address on request.

before exercise. The examining room should be quiet, and the subject should ordinarily not be allowed to talk during the examination. If the subject is nervous, the results will not be normal for that person and should be repeated under better conditions. It should be remembered that if an individual scores low on the test the subject should be examined again the following day; also, the examiner should ask questions relative to sleep, diet and exercise previous to the examination.

In applying the Organic Efficiency Test, the following measurements should be secured in order. (The measurements may be inserted on a blank form such as that shown in Table I.)

(1) AGE AND WEIGHT. This is recorded
(Continued on page 36)

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JOHN L. GRIFFITH, Editor

Looking Ahead

EVERY wise man lives in the present but looks now and then to the experience of the past to guide his steps and then tries to envisage the future. We are here attempting to look ahead with a view to understanding in so far as possible what the future has in store for us. If anyone reads this editorial ten years from now, he may agree that the conclusions were wisely based on present conditions and on the lessons of history. However, we trust that the reader of the future may be able to say that the writer was wrong, because this analysis or prophecy, call it what you will, is a gloomy one.

The facts, however, seem clearly to indicate that the people of the United States today believe in an omnipotent and providential state. We are not attempting to debate the question as to whether or not they are right, but it is clear that they have accepted the idea of state capitalism. We (meaning the majority of our people) apparently agree that, when the state assumes control or ownership of the industrial system, then and then only will we have social and economic security. The income from industry and labor will be equally distributed; poverty will disappear; more children will enjoy the benefits of education; and thus we will conserve the principle of the greatest good for the greatest number.

In short, what has been known in the past as the free enterprise system based on the idea of private ownership of property is being discarded in favor of the totalitarian idea. This is not peculiar to our own country; private property rights have disappeared in a number of the most important countries on the globe. We formerly believed that the race prospered by and through labor, thrift and invention, by increasing production to the end that more people might share in the wealth produced. The material comforts which the American people have enjoyed for the past one hundred fifty years were given to us by a few private individuals who worked hard, saved their money and invested it wisely in productive enterprises, and by those inventive geniuses who are responsible for this push button

existence that we have so far enjoyed. Under the free enterprise system our people have prospered more and have enjoyed a higher standard of living than have the people in any other country in the world. Those who are responsible for side-tracking the free enterprise system in favor of state capitalism no doubt believe that under the latter we will prosper even more than we have in the past.

It is not our purpose to discuss the reasons why we are drifting into state capitalism. The fact remains that our people today apparently believe in the magic of government. They think that elected officers can do more for them than they can do for themselves. We are reminded, however, of the words of an Englishman spoken in this country back in 1927. He said in substance, "When the time comes that your form of government is destroyed, it will not be destroyed by outsiders but will be destroyed by the people themselves." He continued, "When times are good, 75 per cent of the people spend all they make, buy on the installment plan and mortgage the future, and only 25 per cent spend less than their income and save for a rainy day. When times are bad, there is always danger that some demagogue will tell the 75 per cent that the 25 per cent are responsible for the plight in which the former find themselves." He concluded, "If the people believe this, then they will insist on penalizing the successful, and ultimately they will do away with the private property system." We are now spending approximately fifteen billion dollars a year for government. This means that approximately one out of every four dollars earned by the taxpayers is used to support an all-powerful state.

What will be the effect of a change from the free enterprise system to state capitalism on education and on athletics in the educational institutions? In the first place, we know now that the privately endowed colleges are not receiving as many large gifts from wealthy men as they have been receiving in the past. The time may come then when these institutions will either be forced to curtail their activities or depend on state support. State support means ultimately state control.

Second, the tax supported institutions will find their policies dictated more and more by government officials.

In the third place, we may follow Germany's example and appoint a government official to head up boxing, another football, another basketball and the like. This finally would mean that the coaches would be politically appointed. Thinking of the effect of this change on our institutions and people as a whole, rather than their effect specifically on the coaching fraternity, we must realize that no all-powerful state can permit freedom of speech and freedom of the press. This will of course indirectly affect the men who have elected coaching as a life profession.

Is there any chance that this transition from the free enterprise system to state capitalism can be prevented? A war or another depression would help to speed and strengthen centralized authority and power. The American people have it in their hands to revive faith in constitutional government

such as we have enjoyed for a century and a half. If, however, the drift toward state capitalism is stopped, it will be checked, first, by the business men and industrialists of the country who will take more personal interest in their employees, take them into their confidence, give them every consideration and manifest an understanding interest in their problems; second, by wise leadership of the labor unions such as they had during the days of Samuel Gompers; third, by less emphasis on the part of certain teachers and preachers on the glories of the collectivist system, and more facts from the pulpits and the class rooms regarding the accomplishments under the competitive system; and, fourth, by developing a spirit of self-reliance, independence and love of liberty among our people. The coaches have a tremendous responsibility as well as opportunity in relation to this last field of endeavor.

The Economic Outlook

GENERAL CHARLES G. DAWES in his new book, *How Long Prosperity*, states, "The business man, be he merchant, banker, agriculturist or manufacturer, whether he realizes it or not, is a practical economist, applying to his every important action or policy a subconscious economic knowledge gained from experience."

The General might well have included the athletic directors in the schools and colleges of this country with the bankers, manufacturers and others, because they must think in terms of the future and because they are constantly forced to make economic decisions.

In his book the General makes the four following prophecies:

"I predict, therefore, barring wars or inflation of the currency,

"1st. That a high degree of prosperity will maintain in this country into 1939.

"2nd. That beginning in the latter part of the year October, 1938-October, 1939, the tenth year from October 29, 1929, to wit: in the summer or fall of 1939, there will be a stock market collapse.

"3rd. That there will then ensue in the United States a minor recession in business of one or two years.

"4th. That this recession will be followed by a period of prosperity."

Dr. Virgil Jordan, President of the National Industrial Conference Board, recently wrote an article, "The Economic Outlook As It Affects Industrial Relations and the Division of Income." In this article, Dr. Jordan gives his conclusions regarding the immediate future of our economic situation.

Many of the nation's leading commentators and publishers of weekly letters dealing with political and economic matters have made prophecies similar to that by General Dawes, that prosperity will continue into 1939. One of these agencies has stated at different times that we may expect business to remain good and to improve until about 1940. The administration will do everything it can to postpone any recession until after the 1939 elections but, according to these gentlemen, the leading statesmen in both parties expect a recession some time between 1939 and 1941.

These men, of course, may not be right. They do not insist that we accept their conclusions. However, in trying to guess what the future athletic-economic picture will be a few years from now, we may do well to study the opinions of such men as those quoted.

If it is true that business conditions, generally speaking, will be good through three more football seasons, after which there may be two or three years of devaluation and recession, followed by a sustained period of prosperity, then would it not be the part of wisdom to cash in during the next three years while business is good, keeping a weather eye all the time on the possible rainy season of 1940-41? While the schools and colleges did not speculate and gamble as wildly during the period from 1922 to 1929 as many individuals did, most of the educational institutions would not have done certain things that they did if they had known what we know now.

What are the lessons of a depression? First, it is not wise to spend above one's income when times are good. Second, it is wise to build up a reserve fund. Third, a fifteen room house with a four-car garage may be fine when the owner's business is good, but it is a millstone around his neck when his business is bad. In other words, an expensive athletic plant is very much to be desired and it justifies itself when money is available for overhead and to meet maintenance and running costs. When times are bad such a plant may be a drug on the market.

About Subscriptions

INDIVIDUALS subscribing to this publication should make certain of the identity of the person to whom they give their orders. Dishonest subscription solicitors are not yet extinct, although they exist in smaller numbers than formerly. The only persons authorized to solicit Athletic Journal subscriptions are representatives of established subscription agencies and especially appointed solicitors at the various summer coaching schools. Subscriptions should not be given to solicitors who cannot satisfactorily identify themselves. Athletic Journal representatives at summer coaching schools are known to the directors of those schools. Anyone who discovers an unauthorized person soliciting subscriptions is requested to communicate with this publication.

The Summer Vacation

NO athletic contest is won by muscle alone. Contributing to every brilliant victory and to every glorious defeat is the intangible spirit.

The summer lies ahead, and for most coaches that means vacation. They are their own masters. The time is theirs to do with as they will.

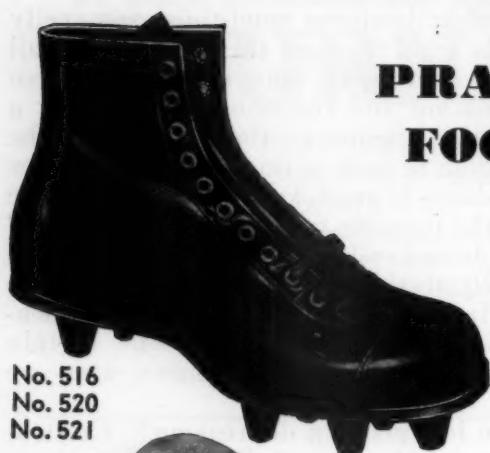
To some individuals, vacation is a period of stagnation. To others, it is a period of growth—growth of the physical well-being, mental growth, growth of the intangible spirit that wins victories graciously, or gloriously meets defeat. To each individual, a choice is given.

Results of that choice will appear next September, or some September five or fifty years away.

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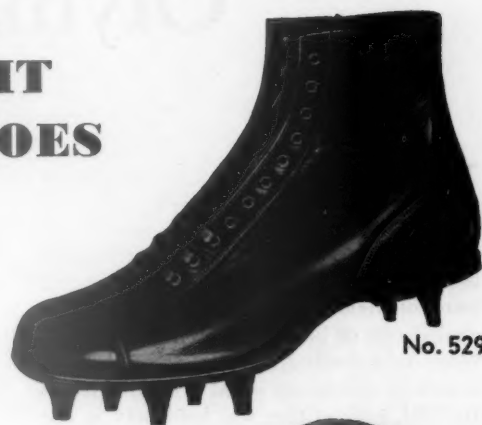
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College Trained Wrestlers in Olympic Competition

By R. G. Clapp, M.D.

Chairman, National Collegiate Wrestling Rules Committee

WRESTLING was first included in the revived Olympics in 1904, and in some form it has constituted a part of the program in each Olympiad held since that date, including the interim meet of 1906. This competition has included one or both of the two recognized forms of wrestling, namely, the free style (catch-as-catch-can) and Greco-Roman. In 1904, competition was held only in the free style wrestling. In 1906 and 1912, only the Greco-Roman form was included in the Olympic program. In all other Olympic meets, competition was held in both types of wrestling.

Comparatively little interest has ever been developed in this country in the more restricted Greco-Roman style of wrestling. Available records indicate that the United States has been represented in the Greco-Roman competition in only one Olympic meet—that of 1912, when no free style wrestling was included—and in that meet only two United States representatives participated.

Inasmuch as free style wrestling allows the use of the legs and leg holds, while the Greco-Roman style allows no holds below the hips, the free style wrestling encourages greater versatility and a much wider range of holds. The colleges have confined their wrestling entirely to the free style system; therefore, this article will deal only with this style.

Early Olympic Meets

In the third Olympiad, held at St. Louis in 1904, there were no foreign entries for the wrestling competition; therefore, this can hardly be considered an international championship, which is implied in all Olympic competition. No college wrestlers participated in this 1904 meet.

College or ex-college wrestlers participated for the first time in Olympic competition in the Fourth Olympiad, held in London in 1908. Competition was held in five weight classes in this meet, and six United States representatives took part, three of whom were college wrestlers. In the earlier Olympic competition, representation in each weight class was not limited to one contestant as at present. Two of the five championships were won by our representatives—George S. Dole of Yale was one of these winners. Great Britain won the other three championships. As available reports indicate the absence of entries from practically all of the European countries other than Great Britain,

IN this article, Dr. R. G. Clapp gives a brief history of the records of college and ex-college wrestlers in Olympic competition. For a number of years, Dr. Clapp, who is connected with the Department of Physical Education and Athletics of the University of Nebraska, has been Chairman of the National Collegiate Wrestling Rules Committee and an influential figure in collegiate wrestling.

this, likewise, can hardly be considered international competition.

As indicated above, no free style wrestling was included in the Fifth Olympiad, held at Stockholm in 1912, and on account of the World War no Olympic competition was held in 1916.

Recent Competition

In the Seventh Olympiad, held at Antwerp in 1920, less than half of the members of the American Olympic wrestling team were college or ex-college wrestlers. While the United States team won only one championship, the two second places, two third places and a tie for third gave this country a sufficient number of points to win the unofficial free style Olympic championship. Credit for this championship should go to the college and ex-college wrestlers because they won one championship and two second places, which accounted for the majority of the points scored by the United States team.

The 1924 United States Olympic wrestling team was composed of thirteen college or ex-college wrestlers and one high school boy. This team easily won the team championship by scoring four of the seven championships, as well as one sec-

ond and one third place, the high school representative winning the second place.

The United States was represented entirely by college and ex-college wrestlers in 1928. This team did not fare so well as former United States Olympic wrestling teams, as it was awarded only one championship and one second place. Six of the seven United States representatives competed in the final matches in their respective weight classes and were allegedly eliminated by rolling falls which, according to previous agreement, were not to be considered falls.

The 1932 United States Olympic wrestling team was also composed entirely of college and ex-college wrestlers. This team won the unofficial team championship by taking three first and two second places in the seven weight classes.

One very fine Y. M. C. A. wrestler, Francis Millard of North Adams, Massachusetts, made the 1936 United States Olympic wrestling team. All of the remaining members were college or ex-college wrestlers. Championship honors in the free style Olympic wrestling events were evenly divided, inasmuch as no country won more than one individual championship. The United States again won the unofficial team championship, however, by taking three second places. Of the four places won by the United States Olympic wrestlers, the first place and two of the three second places were won by the college wrestlers; the third second place went to the Y. M. C. A. representative.

Interest in Wrestling

At about the time of the World War and immediately following it, participation in intercollegiate wrestling and interest in it developed by leaps and bounds. This development was most marked in New England, the Middle West, the Southwest and on the Western Coast. Since that time, the interest has waned on the Pacific Coast, but it has continued to increase in all other sections of the country. The development of a more versatile style of wrestling by the college representatives, the standardizing of college wrestling rules by the representatives of the National Collegiate Athletic Association and the intersectional competition stimulated largely by the inauguration of National Collegiate Wrestling Championships by the National Collegiate Athletic Association have been largely responsible

Olympic Meet	Number of Members United States Olympic Wrestling Team	Number of College or Ex-College Wrestlers on Team	Number of Olympic Championships Won by United States Olympic Wrestling Team	Number of United States Olympic Championships Won by College or Ex-College Wrestlers	Number of Championships Won by Other than College or Ex-College Wrestlers
1904	*15	*0	7	0	7
1908	*6	*3	2	1	1
1920	16	*6	1	1	0
1924	19	18	4	4	0
1928	14	14	1	1	0
1932	14	14	3	3	0
1936	14	13	1	1	0
Totals	98	68	19	11	8

* Unofficial figures.

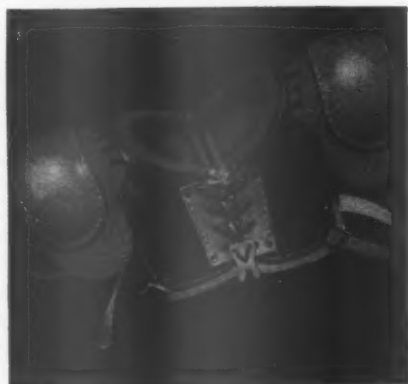


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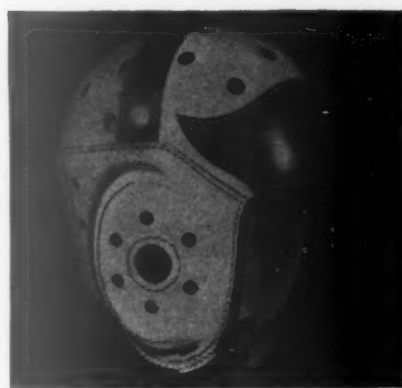
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for the greatly increased interest in amateur wrestling in this country and for the recent domination of United States Olympic wrestling by the college wrestlers. The accompanying table shows clearly the degree to which the college wrestlers have dominated the sport, especially in recent years.

If we eliminate the 1904 United States Olympic wrestling team, on which there were no college or ex-college representatives and for which team the writer understands no college representative competed (the meet was not really international competition because no foreign wrestlers participated), the table shows that 81.9

per cent of all members of United States Olympic wrestling teams, from and including 1908, were college trained wrestlers. Of the twelve Olympic free style championships won by the United States in 1908 and thereafter, eleven were won by wrestlers who had received most of their training in the colleges of this country.

Safety in Swimming

By Ralph W. Beechner

Lincoln, Nebraska, High School

YES, twelve year old youngsters and grayhaired grandmothers will continue to be listed among the drowning fatalities each year, unless we start an active campaign to educate people as to proper water conduct and sane behavior when in and about the water.

It has been estimated that at least 90 per cent of the annual water fatalities are the direct result of the fact that the highly educated as well as the uneducated, the rich as well as the poor, are totally ignorant of correct water conduct and are not aware of safety precautions that need to be adhered to if water accidents are to be avoided.

The Lure of Water

Water holds an irresistible lure and fascination for both children and adults. It is easy to recognize in most human beings a love for the water. We may think of this love as a basic instinct, yet we find that man is born perhaps the most poorly fitted of all animals to get along in the water. For example, if we should take a small child and throw him into a body of water, he would undoubtedly scream for help, become frantic and do everything but the right thing. Under the same circumstances a small kitten would immediately adapt itself to aquatic motions, and, in all probability, swim to safety.

It is evident that man throughout life must mold himself and adjust his being to his immediate environment. Matthew Arnold says that "Conduct is three-fourths of our life and its largest concern." If we agree with him we must be concerned with our conduct while we are in the water. To date, a program that deals with the teaching of water conduct has been sadly neglected. Each year, too many self-taught swimmers are numbered in the list of drowned persons.

Water Education

We need to educate the public by teaching correct methods of swimming. We need to follow up our splendid "learn to swim" campaigns, with more advanced instruction and study. During the "learn to swim" campaigns, we can lay the founda-

THIS article is especially timely at this season of the year. Ralph W. Beechner coaches football and basketball at Lincoln High School, Lincoln, Nebraska. Next year he will also assume the duties of Head of the Physical Education Department and Director of Athletics at this school. In addition to his school work, for the past nine years he has managed a large natural salt water swimming pool in Lincoln. He estimates that he has taught over 2,000 people to swim.

tions and teach the beginners the fundamentals which are essential in producing expert swimmers. These campaigns are a splendid beginning, and thousands of people throughout the United States have taken advantage of them.

An expert musician is not taught to become a master musician in six or seven lessons. We cannot expect swimmers to be developed in a short six-day instructional period. We need safety clinics where people can be taught what to do in case of a drowning. Swimmers should know how to organize to go to the rescue and what should be done after the body



Ralph W. Beechner

has been rescued. Many valuable moments may be saved if correct procedure and proper knowledge are used in cases of this kind. Lives may be saved if the general public is correctly educated.

Life saving instructions should, more than ever, be emphasized so that our swimmers will be ready for emergencies when they occur. We should give these instructions in our educational centers. The masses of our people should become water conscious, as most of them have a keen desire to participate in water fun. It is our duty to prepare them to enjoy its maximum benefits with safety.

Why Swim?

With the approach of summer, I believe it important to answer those few people who still ask, "Why Swim?" Here are some of the outstanding reasons. The individual should know how to swim, or swimming will not attract him for a great length of time. The better he swims, the more swimming he will do.

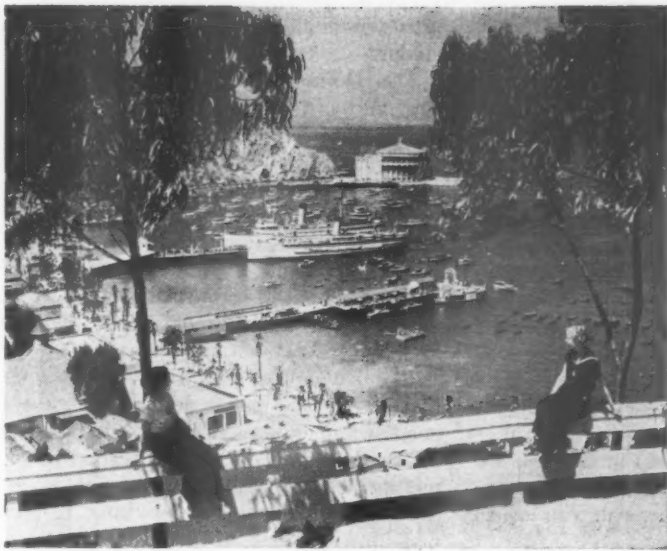
Swimming is undoubtedly one of the greatest exercises in the world. It brings into play every muscle in the body. It is a great conditioner for the whole body, as the muscles of the neck, chest, trunk, legs and arms are all used in this great sport. This causes symmetrical development of the entire body.

Swimming is a normalizing exercise. By this I mean that it has a tendency to make the individual what he physically should be. If he is too stout it will help make him thin; if he is thin, it should help build him up.

The ability to swim will increase the self-confidence of the individual. The spirit of accomplishment is an incentive that makes the swimmer wish to succeed in other activities. To be able to swim is to be able to have fun in the water.

Swimming is an unusually interesting hobby. Time which might be taken up in learning things that are useless or even detrimental or immoral can be used very profitably in learning to swim and in enjoying the great out-of-doors.

The use that can be made of swimming in dangerous situations should in itself



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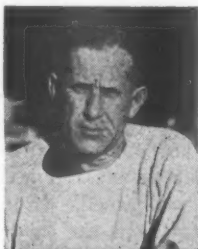
The trip to California and attendance at the Catalina Island Coaching School is within the reach of almost every coach.

Jump in your car, load in the family and head for Los Angeles the latter part of July. Practically all you need is money for gas and oil, eats and a few miscellaneous expenses. Many coaches are planning to bring their families, while groups of coaches are driving together.

Train and bus fares from the East and Middle West are the lowest in a decade. This is an opportunity to have the trip and vacation of a life time and attend one of the nation's outstanding coaching schools.



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The names of Howard Jones, Jimmy Phelan, Bill Spaulding and Tom Lieb are synonymous with football. The same is true of Caddy Works, Jimmy Needles, Sam Barry and Everett Case with basketball.

Phelan and Jones have developed teams of national prominence at the Universities of Washington and Southern California, while Spaulding and Lieb have been equally successful at U. C. L. A. and Loyola.

The new rule eliminating the center jump has long been advocated by Coaches Barry, Needles and Work, and for the past three years they have played without the tip in the Pacific Coast Conference. They will have the latest variations in offense and defense to offer as a result of this.

Jimmy Needles coached the U. S. Olympic champions in basketball last summer at Berlin, while Sam Barry at Southern California and Caddy Works at U. C. L. A. have turned out championship teams. Everett Case of Frankfort, Indiana, High School is one of the outstanding prep coaches in the country.

The entire coaching staff will be on hand all week during the school, and will be available for informal chats and private interviews.

Bathing, golfing, deep sea fishing, sail and speed boating are popular diversions at Catalina, while nearby Mexico may be to your liking. All coaches in attendance will be taken to Hollywood where they will be shown the movie stars in make-up and the workings of motion picture production.



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Athletic Department

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compensate for the effort and time put forth in learning how to swim.

I have prepared a few simple safety hints for study and consideration. My hope is that, if an opportunity presents itself, some reader of this article will be able to save a life or prevent someone else from having a serious water accident.

1. Wait at least one hour after eating before you go swimming. If possible you shall wait even longer. If you swim too soon after eating, cramps may result.

2. You should remember that if you swim out into deep water you must return the same distance to shore. You will be more tired coming back; you should keep this in mind and start back in plenty of time.

3. Before diving into unknown water, you should find out how deep it is and whether it is free from submerged rocks or other obstacles. If a place is not marked as safe for diving, investigate carefully before doing any diving.

4. Do not overestimate your swimming ability, especially at the beginning of the

season when you are not in your best physical shape. Overenthusiasm is often fatal.

5. Do not swim in remote places.

6. Do not, if you are a beginner, try long distance swims alone; always be accompanied by a strong swimmer. If you are swimming a long distance in a large body of water, whether you are a beginner or an expert, you should be accompanied by someone in a boat.

7. It is unwise for beginning swimmers to use inflated rubber play apparatus, such as tire tubes and water wings. If they should break or leak, the result might prove fatal.

8. Do not call for help unless you are actually in trouble. Do not be timid about calling for assistance whenever you are in need of it.

9. Do not take "dares" while in swimming.

10. Do not lie in the sun and try to acquire a quick tan; such a practice usually results in a painful sunburn and has even caused death. Do not sleep in the

sun; you might oversleep and "wake up a cinder."

11. Do not push people into the water; they may not be able to swim.

12. You have no business in a small boat alone if you cannot swim. However, when you get into a boat, whether or not you are a swimmer, step directly into the center of it. Sit down and remain seated. When getting out of the boat, take hold of both its sides and walk in the center so as not to tip it. If the boat should capsize or tip over, stay with the boat.

13. Do not be just an average swimmer; take some instructions and become a good swimmer. All swimmers should take instructions in life saving. A good swimmer is not necessarily a good life saver.

14. If you should get into trouble while in the water, keep cool, try to float, tread water, or keep your legs moving, and your arms under water. All the while, think clearly about what you should do.

15. When you go bathing or swimming, be your own life guard by applying these safety rules.

Extending the Uses of Intercollegiate Athletic Funds

By Carl L. Nordly, Ph.D.

University of Minnesota

THE Department of Physical Education and Athletics at the University of Minnesota through the initiative of Frank G. McCormick, Athletic Director, has undertaken two studies to improve physical education throughout the state. They are being financed over a four-year period by an appropriation of \$40,000 from intercollegiate athletic funds. The titles of the studies are *The Minnesota Study of Physical Education and Related Activities*, and *The Study of Physical Education Facilities and Equipment of the Accredited Public Secondary Schools of Minnesota*.

The first study was undertaken to improve physical education and recreation in selected communities, to develop principles and techniques of general applicability whereby other communities might also enrich opportunities in physical education and recreation and to provide a basis for the modification of the professional training of physical education teachers.

Two Communities

In the summer of 1935 Glencoe and Litchfield were selected for initial study. They have populations of approximately 1900 and 2900, respectively, with school enrollments approximating 575 and 1150.

INTERCOLLEGIATE athletic funds are being used by the University of Minnesota to help finance physical education programs and studies in communities throughout the state. Up to the present time, attention has been concentrated principally on Glencoe and Litchfield, but an extension of the plan is contemplated. The author of this article, Dr. Carl L. Nordly, Assistant Professor, Department of Physical Education and Athletics of the University of Minnesota, has been intimately connected with the plan from its beginning.

About 50 per cent of the secondary school pupils in both communities are transported from outlying rural areas in busses.

Those connected with the study assume that physical education experiences are conditioned by other phases of community life. To determine possibilities for development and the pattern of community activities, surveys of school physical education and community recreation have been conducted, pupils have responded to questionnaires and interviews, and adults have co-operated in granting interviews to determine recreational interests.

Complete co-operation has existed between both schools and the university. Although administrators of the schools

have welcomed recommendations, no attempt has been made by individuals at the University of Minnesota to dictate program content or impose administrative procedures. In the final analysis, provision for sound programs is the responsibility of the community concerned. From time to time, recommendations are made which are based on data gathered in the study. Changes in the programs are being made gradually to avoid the danger of poor work which is likely to accompany too rapid alterations. Opportunities always will exist for the improvement of programs if they are to be dynamic rather than static. It cannot be assumed that the Glencoe and Litchfield programs will ever be patterns, since facilities, number of staff members, staff loads, interests and needs of pupils vary from community to community. However, in addition to providing a basis for improving the professional training of physical education teachers at the University of Minnesota, procedures for the development of programs will be demonstrated as fundamentally sound techniques of general applicability.

The Glencoe Program

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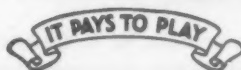
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was no exception, and a staff member, Goddard Du Bois, M.A., was added when the study was inaugurated there in the fall of 1935. Previously "physical education" in the elementary school consisted of daily unsupervised recess periods. Classes for boys in the secondary school met twice a week in two sections with pupils assigned according to vacant periods. Inter-scholastic athletics consisted of football, basketball and baseball competition; there was no intramural program. The athletic coach taught two physical education classes each week and four mathematics classes daily. His assistant taught academic subjects, while an industrial training teacher instructed two physical education classes weekly, although he had no professional training for such work.

Changes Made

The superintendent of schools and members of the board of education were dissatisfied with the existing program. Cognizant that such inadequacy would continue unless a staff member was added, they agreed last year to appropriate one-half of his salary, the remaining portion to be paid by The Department of Physical Education and Athletics at the University of Minnesota. This policy facilitated the expansion of the program and clearly demonstrated the value of a full-time physical education teacher. During the current year, the Glencoe board of education is paying him twice the amount it paid last year, while the Department of Physical Education and Athletics at Minnesota is paying an additional sum, which represents his increase in salary.

Elementary school classes now meet daily under the direction of classroom teachers, who are supervised by the physical education director. Seventh, eighth and ninth grade pupils meet five times a week, and those in the tenth grade attend classes three times weekly. A start has been made in the development of intramural athletics. The writer believes this phase of the program could have been expanded more rapidly, and has concluded from a study of a seasonal job analysis of the physical education director that too much attention and interest has been directed in Boy Scout work to the neglect of intramural athletics. Nevertheless, it is expected that the evidence of staff needs will encourage other boards of education in communities throughout the state to provide minimum staff requirements for physical education programs.

The Program at Litchfield

Complete physical education records are being kept in the Glencoe and Litchfield schools. Forms which were developed for use in these schools have been recommended by the State Department of Education for use throughout the state. Physical capacity, knowledge and skill tests are administered in both schools to moti-

vate pupils and measure the effectiveness of instruction. Litchfield, in particular, has developed outstanding noon hour and after school intramural athletic programs. As a matter of fact, the programs were well under way when the study was started. Major attention in the Glencoe schools will be directed to improving intramural athletics during the coming year.

The Meeker County Play Day was sponsored by the Litchfield Public Schools on May 21 under the able Director of Health and Physical Education, Clarence A. Nelson, who appointed a teacher to assume responsibility for each of the following: information, boys' interclass softball tournament, girls' interclass softball tournament, junior high school league championship softball game, officials for all softball games, horseshoe tournament, volleyball tournament, golf tournament for boys, golf tournament for girls, tennis tournament for boys, tennis tournament for girls, interscholastic baseball game, dramatic club play and band concert. In addition, committees were appointed to take charge of a track and field meet, softball tournament for district schools, noon hour league championship game, elementary school intramural activities, dance and general order around the school building. This method of organization and preparation contributed to the enjoyment of the participants.

Necessary Legislation

Early in the study it was obvious that legislation was needed which would permit school boards to spend money for recreation throughout the year. Such a bill previously had failed to pass in the legislature. Through the initiative of Frank McCormick, the American Legion in Minnesota at its state convention last summer adopted a resolution to sponsor a similar enabling bill which was passed last winter.

Appreciating the consequences of such legislation, residents of Litchfield will attend a community meeting to discuss recreation activities and means of promoting them. The meeting will also be attended by recreation leaders throughout the state who will act in an advisory rather than a dictatorial capacity, since recreation is a community responsibility. That group is interested primarily in developing community solidarity for support and participation in the program. Evidence of interests in activities other than those revealed in the interviews of adults may be determined at the community gathering.

Physical Education Study

Brief reference will be made here to *The Minnesota Study of Physical Education Facilities and Equipment in the Accredited Public Secondary Schools*. Many schools throughout the state are unable to develop satisfactory programs in phys-



**"BY
REQUEST"**

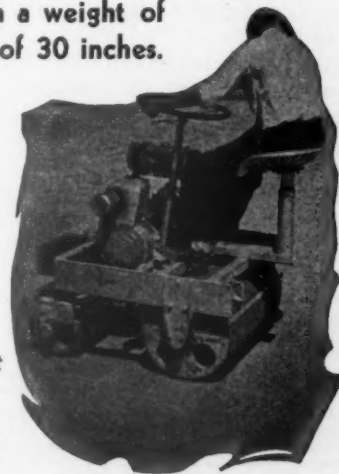
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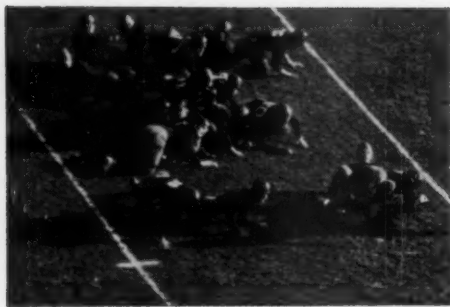
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ical education because the facilities are inadequate. Similarly, many communities cannot promote recreation programs which include a wide variety of games and sports because facilities are limited. Although a recreation program should not be confined to games and sports, a program which does not include them is incomplete. It is hoped that data from the study will stimulate communities to provide better physical education and recreation facilities where they are needed. Summaries of the data will be mailed to schools co-operating in the study so that administrators can compare their facilities and equipment with those in communities of similar size throughout the state.

Another purpose of the study is to obtain information which will be useful in the preparation of physical education teachers. Students in physical education professional training should know what is included in a superior physical education program and how to administer it. How-

ever, they also should know the handicaps they might face and how to meet them. Information about such handicaps will be used to improve professional training in physical education in this state. Furthermore, members of the Department of Physical Education and Athletics at Minnesota will be in a position to give better advice to students who are appointed to positions in communities from which completed questionnaires have been received. The seven page questionnaires were mailed on May 1. At the date of this writing, May 22, 231, more than 45 per cent, have been returned. Follow-up letters undoubtedly will result in an increase in the percentage of replies.

School administrators throughout the state have demonstrated their interest in the two studies. Many inquiries about the Glencoe and Litchfield programs, physical education facilities and equipment have been received. In their initial stages, the studies have contributed to physical education promotion throughout the state.

Summer Baseball and Eligibility

By C. O. Brown

American Baseball Congress

SOLUTION of the troublesome problem of protecting the eligibility of high school and college students who wish to play summer baseball at last appears in sight. The worry of the coach over having some of his star athletes talked into playing baseball that would disqualify them for further participation in scholastic or collegiate athletics will at least be reduced greatly this summer as the result of a joint investigation on the part of the National Semiprofessional Baseball Congress and the American Baseball Congress, sponsoring, respectively, semiprofessional and amateur baseball.

The former is a frankly commercial venture, well managed and operating exactly as represented. It pays cash prizes. The latter is a volunteer, self-governing group for what is loosely referred to as "amateur" baseball, financed in major part by the manufacturers of athletic goods. It has no paid officers. No team may be reimbursed in tournament play from receipts beyond actual expenses incurred.

Canvass of State Associations

Some state high school athletic associations permit players to be paid in summer baseball, as do some college conferences. Many do not. For the convenience of high school coaches, the results of the joint investigation mentioned above are given at the end of this article. The seventy-seven college conferences are now being asked to pass on the eligibility rules of the two sandlot baseball associations. It will require about two more weeks for

this information to be compiled. Coaches may secure this information as soon as it is compiled by addressing the writer in care of this periodical.

Most state high school athletic associations permit pupils to play in leagues under the American Baseball Congress with full protection of their scholastic eligibility, except that the responsibility for his own team's living up to the rules is placed upon the player himself. If "ringers" are inserted by certain teams, the opposing players are fully protected. Officials of the American Baseball Congress will punish offenders.

Eight states have not yet reported. Iowa thus far has not officially recognized the new sandlot body, but an attempt is being made to adjust this difference. To protect the player, several states require written permission of the school principal.

Protecting Eligibility

This does not mean that independent teams may not be in the clear as to eligibility, but it does mean that a coach by a very little investigation and by recommendation to his players can place them in organizations where protection is assured.

Obviously, where semiprofessional ball is permitted, coaches have no worry, but, in states where restrictions are imposed, it will be wise for them to consult the tabulation below and advise their players accordingly.

Neither of the sandlot bodies as yet has associations in every state, but about three-fourths of the country and about 85

percent of the country's population are serviced. Those states not now having such organized sandlot associations will probably be serviced in 1938.

Results of the Canvass

Following are the results of the canvass among state high school athletic associations, relative to eligibility of high school players participating in summer sandlot baseball.

States which permit high school athletes to play in semiprofessional baseball without being disqualified: Arizona, Colorado, Kentucky, Louisiana, Massachusetts, Minnesota, Nebraska, New Hampshire, North Dakota, Rhode Island, South Carolina, Utah, Vermont and Wyoming.

States which permit high school athletes to play in semiprofessional baseball under certain restrictions: Idaho (but players must not receive pay), Maine (unless there is some objection by school authorities), Michigan (provided players accept no money directly or indirectly), New York (but it may affect

At this time of year, many coaches are faced with the problem of eligibility of young athletes as affected by summer baseball. Various state athletic associations have different regulations with respect to semiprofessional baseball. Some associations do not allow high school athletes to participate on semiprofessional teams. Others allow such participation if the individual player does not accept remuneration. This article by C. O. Brown, President of the American Baseball Congress, is based on a recent survey.

players' amateur status), Ohio (if players do not accept pay), Oregon (but no players of team are to receive compensation), Tennessee (but players may accept legitimate expenses only), Washington (no definite ruling, but player must have permission from State Secretary and receive no pay) and Wisconsin (but players may receive no pay).

States which do not permit high school athletes to play in semiprofessional baseball: Arkansas, Connecticut, Delaware, Florida, Georgia, Illinois, Iowa, Kansas, Maryland, Nevada, New Mexico and West Virginia.

States which do not permit high school athletes to play in semiprofessional baseball but which qualify their rulings as follows: Alabama (unless team is home place team), Indiana (player becomes ineligible if he violates his amateur standing in any way, by playing under assumed name or by accepting remuneration directly or indirectly for his playing), Missouri (if player receives pay), Montana (bars player for one semester), Oklahoma (playing on a semiprofessional team will bar a player for one year), South Dakota ("it is possible" to bar a player for participating in semiprofessional ball) and Texas (if any pay is received).

States which permit high school athletes to play in amateur (American Baseball Congress) ball without being disqualified: Alabama, Arizona, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Kentucky, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico (must have permission of principal), New York, North Dakota, Ohio, Oklahoma, Oregon (must keep all eligibility requirements of the O. H. S. A. A.), Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington (must have permission of principal), West Virginia, Wisconsin and Wyoming.

State which does not permit high school



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More Unusual Happenings in Sport

By O. E. Dahlquist

HERE are some more incidents in sport such as do not occur every day. These relate to the noble sport of golfing and the contemplative art of fishing. Other unusual happenings, in football, basketball and baseball, were published in last month's issue.

Dogs and horses are generally conceded a certain amount of intelligence, but whoever thought that the old family cow would ever be extolled for using her head? Jack Blakesley, widely known golf professional, spins a yarn about a golf match that even I, gullible as I am, find hard to believe. The setting for this story is the par three, 120-yard seventh hole at the Delaware Country Club, Muncie, Indiana, in the year 1921. A fence extended to the right of the fairway. Beyond this barrier several cows were peacefully grazing. The tee shot of one of Blakesley's foursome developed into a beautiful round-house slice. The ball cleared the fence nicely, caromed off the head of one of the sad eyed bovines, gleefully bounced back on to the green and slowly but surely found its way into the cup for an easy hole-in-one.

If you can stand another golf story, and I know you can, I'll tell one that hap-

pened to Peter Ellena in 1934 on the Sinnissippi course, Rockford, Illinois, involving a dog and an eagle. On the par four eighth hole, Pete made a beautiful drive right down the middle with just enough hook on it to make anyone feel certain that at last he had mastered that particular shot, when along came a yellow dog in a playful mood and picked up the ball before it had stopped rolling. Then the miracle of miracles happened. This same little yellow dog showed his true color by gently depositing the ball a few inches from the cup on the eighth green. As Pete approached the green all in a sweat, our nice, dear little dog stepped to one side, and, with their mouths wide open, Pete and the little dog sank the "gimme putt" for an eagle two.

We will all readily admit that golf can force the holiest of saints into making slightly warped statements, but fishing—ah, that's something else again! Morris Johnson, famous one-trip plumber and sportsman extraordinary, with two other good "Irishmen," Albert Larson and Truman Johnson, on one of their expeditions to the "Blue Hole" in the Kishwaukee River had an experience worth recording. Morris had hooked a three pound bass.

The fish in one of its characteristic leaps had forced the hook through its gill and, like most poor fish in misery, he craved company. The bass therefore set about looking for a suitable companion. A nine pound catfish, seeing the spotlight that a member of the bass family was enjoying and deciding not to be outdone, promptly grabbed the extended hook. Morris Johnson nonchalantly pulled the two fish in so that they would all be in the same boat.

You can talk about the black bass and the catfish being social climbers, but a nine inch perch I know made those two poor fish look bad. It took the perch twelve years longer, or until the year the stock market crashed, to reach the dizzy heights, but, like most of us, he took a double hooking when his time came. Hub Thelen and Tude Johnson were still fishing in Lake Jordon with their lines very close together. I do not know the reason for this, but I suspect that they were jealous of each other's prowess. Their wishes were promptly and justly rewarded. The bobbars on both lines were given approximately simultaneous tugs, and, upon reeling in, Hub and Tude discovered they had snagged the same fish!

"And so—far into the night."

The Organic Efficiency Test in the Athletic Program

(Continued from page 21)

in Table I along with the date and hour of examination.

(2) **NUMBER OF ASCENTS ON STAIRS.** This information is obtained from a table prepared by Master and Oppenheimer.⁵ The number of ascents on the stairs (two-step stairs) is determined by the age and weight of the individual; for instance, a subject 24 years of age and weighing 165 pounds would have 24 ascents on the stairs.

(3) **SITTING SYSTOLIC AND DIASTOLIC PRESSURE.** (Fourth phase diastolic.) These measurements should be secured only after a period of rest in the sitting position. The length of this rest period will vary with different individuals, but it should be at least one minute in length. If the subject has walked a flight of stairs just before the examination, the rest period should be longer. If the subject is found on two consecutive days to have a systolic pressure over 150 and a diastolic pressure over 100 or below 50, he should be referred to a physician. These two measurements are recorded in Table I along with the sitting

pulse pressure, which is the difference between the systolic and diastolic pressures.

(4) **STANDING SYSTOLIC AND DIASTOLIC PRESSURE.** (Fourth phase diastolic.) The individual should be given a rest period of at least one minute in this position. These two measurements, along with pulse pressure, are recorded in Table I.

(5) **STANDING PULSE RATE.** The pulse rate is taken for fifteen seconds and the value is multiplied by four in order to get the rate for one minute. At least two consecutive measurements should be secured. If these two measurements are not the same, the rate should be taken for a full minute after a rest period. Record in Table I.

In all the pressure and pulse rate examinations, rapid changes in posture of the subject should be avoided.

(6) **VITAL CAPACITY.** This measurement is secured by the use of the flarimeter. The large orifice should be open for the measurement. The subject should inhale as much air as possible and then exhale

into the mouthpiece, keeping the water level in the gauge at the black line. If this is done it means the subject is exhaling at the rate of 200 cubic centimeters per second. The length of the blow should be timed in seconds, beginning approximately when the water level reaches the black line on the gauge. The subject should be encouraged to bring the water level up to this line as quickly as possible. Two trials should be given and the largest measurement should be selected. After each measurement, the temperature in the flarimeter should be read and recorded. In order to obtain the correct lung capacity, it is necessary to multiply the length of the blow in seconds by 200 and add the temperature corrections. The correction necessary is obtained from McCloy's table.⁶ Suppose the subject exhales for twenty seconds and the temperature in the flarimeter is 23 degrees centigrade. The

⁵McCurdy, J. H., and Larson, L. A., op. cit., p. 84.

⁶McCurdy, J. H., and Larson, L. A., op. cit., p. 97.

uncorrected vital capacity is 200 times 20, or 4000 cubic centimeters, or 4 liters. The correction to body temperature is made in the following manner. The temperature (23 degrees) is found in the vertical column in McCloy's table, and the volume (4 liters) in the horizontal column. The point at which the two co-ordinates meet indicates the correction that is added to 4 liters (4000 c.c.). In this case it is .32 which gives 4.32 liters or 4320 cubic centimeters.

(7) **TRIAL BLOW IN SMALL ORIFICE (FLARIMETER).** A practice blow should be given, using the small orifice. This is a measure of breath-holding ability and will be used in this test to determine the breath-holding ability after a standard exercise.

(8) **STAIR-CLIMBING EXERCISE.** The double-action stop watch should be used with one hand running continuously for this measurement and the two following (breath-holding and pulse rate). The number of ascents for this exercise is found in a table prepared by Master and Oppenheimer.⁷ The exercise, which should begin with the hands of the watch on 60, is continued for 90 seconds. If the number of ascents is 24, it means 8 ascents per 30 seconds. The examiner should count, with the subject ascending with the count. In going over the stairs, the subject should have his legs fully extended. This is necessary so as to standardize the amount of work done during the exercise. The subject should turn in the opposite direction when beginning the alternate ascents. This is to avoid dizziness. The last ascent should be complete at the end of 90 seconds or when the hands on the watch are at 30. The subject is then asked to sit close to the table on which is the flarimeter and breathe normally.

(9) **BREATH-HOLDING 20 SECONDS AFTER EXERCISE.** Seventeen seconds after exercise (hands on watch at 47) the subject is asked to inhale once and blow into the mouthpiece of the flarimeter, keeping the water level on the black mark of the gauge. The subject should be encouraged to give as much as possible in this measurement. One of the two hands on the watch is stopped at the beginning of the blow and the time at the beginning of the blow recorded. This hand is then released and allowed to continue. At the end of the blow the hand is again stopped and the length of the blow recorded in seconds. One hand on the watch continues to move, which is necessary to obtain the pulse rate exactly two minutes after exercise. At exactly one minute and forty-five seconds after exercise the subject is asked to stand.

(10) **PULSE RATE STANDING TWO MINUTES AFTER EXERCISE.** The pulse rate is taken for fifteen seconds at exactly two minutes following the exercise (hands on

watch will be at 30) and this value is multiplied by four. The record is placed in Table I.

Method of Scoring and Classifying

The Organic Efficiency Test consists of five measures: sitting diastolic pressure, breath-holding 20 seconds after standard exercise, difference between standing normal pulse rate and pulse rate two minutes after exercise, standing pulse pressure and vital capacity. The results of these five organic functional measures are inserted in Table II under the column labeled "Raw Score." The "T-Score x Weighting" is then obtained for each measure from a table prepared by the writers.⁸ The sum of the five "T-Score x Weighting" values gives the "Index Score" for the Organic Efficiency Test. The classification of the Individual is obtained by referring to the Classification Table found in Table II. Suppose the Index Score of an individual is found to be 360. This individual is in the "Above Average" classification.

Applications

The Organic Efficiency Test should be given in conjunction with the medical examination to determine the organic functional fitness of an individual for athletic training. If an individual receives a low score on the organic efficiency test after two applications under normal conditions, the reason for the low score should be determined in the light of the five measures in the test. If it is due to a high diastolic pressure (above 100) in the sitting position, the subject should be allowed to exercise only under careful medical supervision. If it is because the breath-holding ability is low (below 15), or the pulse rate two minutes after exercise is subnormal (-16), or the pulse pressure is extremely high (above 60), or extremely low (below 20), the subject should not be allowed to take part in strenuous athletics without a further medical check-up.

Limitations

The Organic Efficiency Test should be tried: (1) in classifying athletes who have learned the skills in which they are to be graded in physiological fitness; (2) in measuring improvement in condition in individual athletes; (3) in showing return to condition after temporary illness.

Back Copies Wanted

BACK issues of the **ATHLETIC JOURNAL** are wanted by a coach of swimming. Anyone having the following issues for sale should communicate with this publication: October, November, December, 1926; February, 1923. Price desired should be stated in the first letter. The article wanted in the February, 1923, issue is "What Swimming Strokes Consist of." Any subscriber willing to part with this article, even though not the entire issue, should also write to this magazine.



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⁷McCurdy, J. H., and Larson, L. A., op. cit., p. 84.
⁸McCurdy, J. H., and Larson, L. A., op. cit., p. 93.

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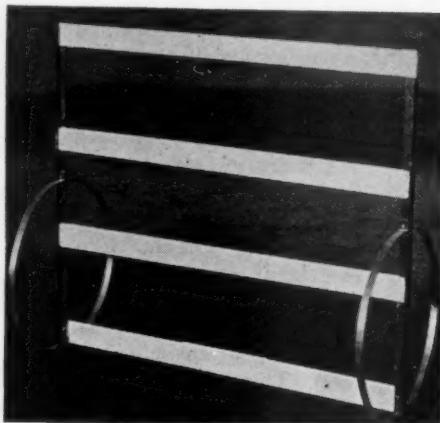
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(Patent applied for and accepted)

More Baseball Practice Session Talks

(Continued from page 18)

to tag him out. If you attempt this throw, you must do it early. Why? So that if it fails to work you still have time to throw to the baseman and get your man for a one-throw put-out. Otherwise, you may allow the runner to reach his base safely.

"You may also use the bluff peg effectively to save yourself an error or to turn a slow infield hit into a put-out. Our shortstop and third baseman have the best



H. S. DeGroat

opportunity to use this stunt. If there is a runner on second base when you, at third or short, bungle a ball hit to you, and the play is one on which the runner on second might hesitate in his start for third, you have the stage set for using the bluff peg and saving yourself an error. This stunt is especially good if there is any doubt about being able to get the ball to first ahead of the batter. Make a real bluff to throw to first, and usually the runner on second will start for third. Why is this true? He has probably crept up the base line as he saw you fumble the ball and, as you bluff, he starts. Now, if you are the third baseman, you can head him off. If he starts back toward second, as he realizes your trick, you can throw him out. If you are the shortstop and have bluffed, you may find the runner well along toward third base, to which you may throw. Or perhaps the runner may be headed back toward second, in which case you may throw to your second baseman for the put-out. This same trick will work on a slow infield hit on which you may be unable to field the ball in time for a put-out at first.

"The third situation in which the bluff peg is very useful is when runners are located on first and third bases. A good

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bluff throw to second by the catcher as the runner on first goes down may draw the other runner off third base and make possible a quick throw by the catcher and a put-out. This is especially the case if the catcher has thrown to second base each time this situation has arisen before in the game. When there is a poor batter up, two men are out and the count against the batter, the team at bat will often try the delayed steal in order to score the runner on third. If the catcher can sense this possibility and use the bluff peg as the runner on first starts for second, he will probably find the runner on third responding favorably to his bluff. If the man at bat is a good hitter, however, it is unlikely that the delayed steal is being attempted. In that case, the catcher must throw and not bluff. If this situation arises late in the game and the run on third would tie or win the game, I should vote in favor of a good bluff, especially if we happen to have the batter in the hole."

Offensive Plays

Two of the important offensive plays of baseball, the delayed steal of home and the delayed steal of home and second, are discussed in the next talk.

"I hope you as batters have firmly in mind the difference between the two plays, hit and run and run and hit. In the hit and run play, you must cut at the ball regardless of whether it is good or poor. In the run and hit, you swing only if the ball is good.

"Today we must learn the fine points of the delayed steal of home, and the delayed steal of home and second, and try to understand when it is proper to use these plays. Probably the most useful time for the first play is near the end of the game when all other attempts to win have failed, with the tying or winning run on third, a good baserunner on first, two men out and a weak hitter up with two strikes on him. The idea here is to score the runner on third and perhaps sacrifice the runner on first base. If we wait for the pitch, it may be a strike, or our batter may pop up for an easy out. Then our chances are gone. If our man on first starts down on the pitch, and the catcher does not throw, we will have no chance to work the play. We must draw the throw to first if possible. How shall we do it? The runner can take too long a lead and draw a throw or he may start early. Starting early may not draw the throw to first, however. Perhaps the opposing pitcher has been trained to step off the rubber, look toward third and throw to second to head off the runner. Then we have another problem facing us if we are to score the man on third before our runner on first can be put out on the base line.

"I prefer the throw to be drawn to first. If the runner on first takes too

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long a lead he may draw this throw. At least he should try it. Much depends upon this runner now. Instead of returning to first, he must dash toward second at such speed that the first baseman will throw and will not hold the ball to study the situation. As the first baseman lets the ball go, I want the runner on third to cut for home. His chances of scoring are good because the ball must travel seventy to eighty feet to second and then all the way home, and either of the two throws may be erratic. Our man on third must get the proper lead off base and be on his toes to start as the first baseman throws. He must not hold up that throw of the first baseman by any useless act.

"Now, suppose our man on third does not go, or suppose the pitcher fails to throw to first but heads our runner off second base. What can we do now to make our play succeed? If our runner does not dig for first base at a fast clip, our plans may be defeated. Any good team can chase a runner back at a fast clip and make a one-throw put-out before the runner on third can score. Our runner must control this situation. If he goes fast, he may draw a long throw from the second baseman or shortstop to first and our man on third can go on that throw. If our man on third does not go this time, he certainly must go when the first baseman throws toward second again. Here again our runner 'in the pickle' must break fast for second in order to draw this throw. He must stay 'in the pickle' until our man can score. If you perform as I like, the runner on third will go on the initial throw that the first baseman makes, and our runner on first must draw the throw. Sometimes an early start by the runner on first may cause a balk. The pitcher often steps toward first but does not throw there.

"There are situations in which we might try the double delayed steal of home and second. If there are less than two strikes on the batter and the signal for this play is flashed with runners on first and third, the runner on first should start on the pitch and hold up if the catcher throws all the way through to the shortstop. If the runner on third takes a long lead unobserved and cuts for home on the catcher's throw, we should succeed most of the time, especially if our runner on third has speed. To check this play, the other team's cut-off man must make a practically perfect throw home. If the catcher's throw is wide or slightly high, it may cause the cut-off man to be off-balance as he throws, or the throw may go through to the shortstop and pull him off balance as he throws. If our man on third does not go on the catcher's throw, everything is as stated in the play we have just described. Our runner from first must dig back for first and draw a throw or cause opposing players to disregard our man on third just long enough

for him to make his break for home and beat out any possible throw or combination of throws. We will try this play a few times and then I will tell you the signal for it and when we expect to pull it."

Double Play with Man on Third

The last sample talk deals with three defensive plays of baseball. The first of these is the double play with a runner on third base.

"Suppose the opposing team has a runner on third who tries to score on an infield grounder. How shall we play this situation if the runner holds up and tries to remain 'in the pickle' so that the batter can at least make second? Can we get our put-out and hold the hitter at first? Can we put out the hitter, too, if he attempts to go to second, and thus ring up a double play?

"This is the way we must go about our defense. Our third baseman must follow the runner on third up the base line but stay about fifteen feet away from him. Our shortstop must take third base at once, and, if the runner gets away from our third baseman, the shortstop can take the throw for a put-out at third or back up any throw made by the catcher. As our catcher takes the throw heading off the runner, he must chase the runner immediately toward our third baseman and toss the ball to the latter for a one-throw put-out well up near home. Our third baseman can then hold the hitter at first or, if the latter has been waved on toward second, our third baseman can throw to our second baseman, who should be at second base for such a put-out.

"To prove that this is the only way to hold the batter at first base, we will let our catcher try chasing the runner all the way back to third for a put-out. We will find that, while the catcher is covering these eighty or more feet of base line after receiving the ball ahead of the runner, the batter can easily make second. Let's try this and then try the correct way."

The Trapped Fly Bunt

An unusual defensive play is described in the following paragraphs.

"Let me call attention to a play that can result in a double play but that seldom arises in a game. The situation calls for a runner on first base and an attempted bunt that results in a pop-up directly toward our pitcher. Naturally, a runner, seeing a fly going toward the pitcher, will hustle back to first. If the pitcher catches the bunt on the fly there will be but one out. Should he fake to catch it but follow it down and trap it, there is an opportunity for a double play if the first baseman plays correctly. The latter must touch the runner first and then the bag. If the first baseman touches the bag first, the batter will be out and

the runner who is on first will not be forced to leave. If the runner leaves, the first baseman must touch the bag, throw to head off the runner at second and tell the second baseman to tag him. If the second baseman does not tag the runner, the latter will not be out, because he has not been forced.

"This same situation could be set up on an attempted bunt with men on both first and second because a bunted fly is not considered an infield fly according to the rules."

Double Play with Man on Second Only

A defensive play that requires excellent timing is described here.

"A situation in which a runner is trapped between second and third on a ball hit to the infield can be turned into a double play by a very experienced team. I do not advise it as a regular thing for young players. The idea behind this play is to hold the runner 'in the pickle' and draw the batter to second base but put him out and then put out the trapped runner.

"Suppose the runner on second starts toward third on a ball hit to our shortstop and is trapped. Should our third baseman chase this runner back, make a one-throw put-out and thus hold the hitter at first base? This would be our usual handling of this situation. But if we wish to try to be 'big time' we might try for a double play. However, it is risky. We have tried it many times in practice, and the timing of it is not easy to control. Our second baseman must cover his base at once and stay there. Our shortstop and third baseman must hold the runner 'in the pickle,' but our third baseman must have the ball at just the right time to throw to our second baseman as the hitter attempts to slide into the base. It may mean that our shortstop and third baseman exchange the ball twice, but they must entice the hitter to try for second. After the hitter has been put out, the other runner, who should still be 'in the pickle,' can easily be put out. We will try this play a few times and if your timing of it proves successful we may add it to our program."

AUTHOR'S NOTE: Credit for many of the ideas involved in these last few practice session talks must be given to Les Mann, from whom the author received many fine ideas that have proved very useful in coaching baseball at Springfield College.

Physical Condition in Tennis

(Continued from page 17)

Moody was then a far different player than when she lost to Miss Stammers. She had the slight edge she needed to win. On the basis of previous play, Miss Jacobs

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was favored to win. The work Mrs. Moody did before this final match had not only speeded up her play; it had put her in good physical condition for this match.

A Great Doubles Match

The 1935 match between the United States and Germany was an important one, as the winner was to play England for the Davis Cup. Germany had as her star performer Baron Von Cramm, one of the high ranking players in the world; in fact, he was outranked only by Fred Perry, the English player who recently turned professional. The doubles match, which practically decided the winner in this series, was contested by Allison and Van Ryn of the United States and Von Cramm and Lund of Germany. Von Cramm probably never played better tennis in his career than he did in this match. He had Lund's terrific serve to help him. So the Americans, at that time probably the greatest doubles players in the world, had to be at their very best to win finally by three sets to two, after three hours of bitterly fought tennis. In this match, Allison lost nine pounds and Van Ryn lost seven pounds, which is a fair indication of just how strenuous top-flight tennis is.

Players of the United States team took exceptionally conscientious care of themselves. They lived a normal life. None smoked. Contrary to the practice of some of our football teams, they indulged in no special diet. They all drank ordinary water and ate plain English food. All had plenty of sleep and rest before and during the matches.

The Weight Chart

It is interesting and enlightening to study the weight chart which was kept from the time the team landed in England until the final match with England. This chart shows that on June 12th, when the team landed in England, Allison weighed 152.5 pounds. At first, he made almost a continuous gain. On July 20th, before the German match, he worried somewhat and lost two pounds just before the first day's match. Then after a day's rest on Sunday he gained back the two pounds. On July 23rd, the day of the doubles match, he lost nine pounds, but he gained back seven and a half pounds before the next day's match. Then, after the last German match, he rested a day and his weight came back to 157.5 pounds, which was one pound more than the day before the first German match. Three days later, he was to face the English team; so he refrained from hard work with the idea of restoring his strength for this final match. He lost weight just before the English match in much the same way as he had done before the first German match. But after the first match, with a day's rest, he weighed 158 pounds, his greatest weight of the campaign. He finished the many matches of this Davis Cup play at 157.5 pounds, a

gain of five pounds since the team's arrival in England.

Van Ryn stated that in former foreign trips he always lost from seven to eight pounds, but in 1935 he held his weight through the matches. Budge at that time weighed 150 pounds, much too little for his height of over six feet. Since 1935, Budge has gained over twenty pounds, which has been a great help to him during these past two years. Mako weighed 162 pounds when he landed in England and



Harry Hillman

finished the season weighing 170 pounds. Woods started the season in England weighing 141 pounds and finished weighing 144 pounds.

These gains and the holding of weight during strenuous tennis were made possible by plenty of rest. This the boys had. On the day of a match, Allison and the other boys would rest in bed almost up to the time of going on the court. They would not sleep much during the day's resting periods; they would just relax and keep off their feet. Allison has been discussed in detail here because he did more playing than any of the other members of the team, inasmuch in all the cup matches he was compelled to play both singles and doubles.

To appreciate the significance of the figures mentioned above, one must regard the athlete from a conditioning point of view. Many athletes are overworked. We see the mistake of overworking athletes made every year. Those in authority seem to require several years to learn or pretend to know how much work should be given an individual. To have an athlete reach his peak at the proper time is a most difficult task. Successfully conditioning an athlete in any sport results from a combination of common sense and experience; probably experience is the more important factor. The longer one has been in the game, the more he should know.

Middle and Long Distance Running

(Continued from page 15)

TUESDAY—Warm up by jogging on grass.

Run 660 yards at quarter-mile pace.

Walk until rested.

Swing through slow quarter.

Finish with work on weights and bars.

WEDNESDAY—Same as Monday.

THURSDAY—Warm up by jogging on grass.

Run 300 or 600 yards for speed.

Walk until rested.

Swing through slow quarter.

Finish with work on weights and bars.

FRIDAY—Rest. (Report for light rubdown.)

SATURDAY—Time trials or competition.

Mile Work Schedule

MONDAY—Warm up at least five minutes by jogging on grass.

Take starts with gun.

Run slow mile with even quarters.

Walk until rested.

Take two heats of 75 yards each for speed.

Finish workout on weights and bars.

TUESDAY—Warm up by jogging on grass.

Run three-quarters of a mile at pace.

Walk until rested.

Float a slow quarter or half.

Finish with work on weights or bars.

WEDNESDAY—Warm up by jogging on grass.

Take two heats of 100 yards each for speed.

Run a mile and a quarter with a burst of speed.

Walk until rested.

Finish with work on weights and bars.

THURSDAY—Warm up on grass.

Run two heats of 880 yards each at pace with rest between.

Walk until rested.

Finish with work on weights and bars.

FRIDAY—Rest. (Report for light rubdown.)

SATURDAY—Time trials or competition.

Two-Mile Work Schedule

MONDAY—Warm up at least five minutes by jogging on grass.

Take short starts with gun.

Run two and a half miles for endurance.

Walk until rested.

Finish with work on weights and bars.

TUESDAY—Warm up by jogging on grass.

Run one and a half miles at two-mile pace.

Walk until rested.

Run slow quarter.

Finish with work on weights and bars.

WEDNESDAY—Warm up by jogging on grass.

Run two quarters or halves at pace.

Walk until rested.

Run slow mile.

Finish with work on weights and bars.

THURSDAY—Same as Tuesday.

FRIDAY—Rest. (Report for light rubdown.)

SATURDAY—Time trials or competition.



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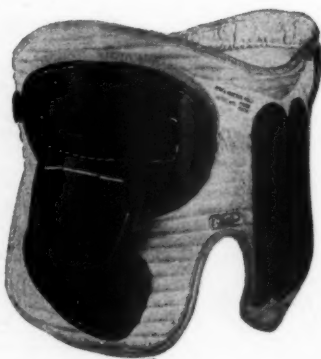
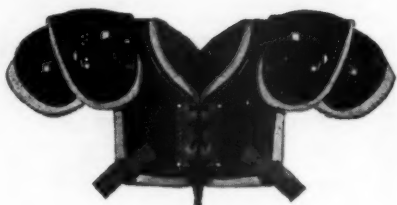
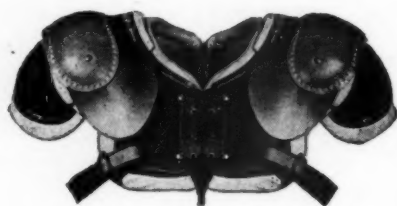
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